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ADULT EDUCATION TECHNIQUES IN DEVELOPING COUNTRIES, A GREEK CASE STUDY. PROBLEMS OF DEVELOPMENT SERIES.

BY- FOURRE, PIERRE AND OTHERS

ORGANISATION FOR ECONOMIC COOPERATION AND DEV.

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AIDED BY THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT AND THE ORGANIZATION FOR EUROPEAN ECONOMIC COOPERATION, GREECE HAS ESTABLISHED A NETWORK OF ADULT EDUCATION CENTERS OUTSIDE TOWNS, TO MEET THE PROBLEMS OF ILLITERACY AND LOW EDUCATION LEVEL. THE CENTER PROVIDES FOR ACADEMIC AND LIBRARY PROGRAMS, SIX TO SEVEN MONTHS, AND RECREATION SERVICES THROUGHOUT THE YEAR. ADMINISTERED BY THE LOCAL PRIMARY TEACHER, THE PROGRAM UTILIZES COMMUNITY PERSONNEL (CRAFTSMAN, DOCTORS, WELFARE WORKERS) AND GOVERNMENT SPECIALISTS TO PROMOTE VILLAGE DEVELOPMENT, AND RAISE LIVING STANDARDS AND EDUCATIONAL LEVELS. CURRICULUM IS ORGANIZED ABOUT A CENTRAL POINT OF INTEREST, AND SUCH AREAS IN AGRICULTURE AND HEALTH ARE ILLUSTRATED. DETAILED DESCRIPTION OF THE USE OF DISCUSSION GROUPS, QUESTION AND REASONING METHODS, AND SPECIAL LITERACY MATERIALS ILLUSTRATE SUCCESSFUL TEACHING TECHNIQUES. INCLUDED IN THE SYLLABUS ARE LITERACY, TECHNICAL, AND GENERAL EDUCATION, ALL UTILIZING A VARIETY OF AUDIOVISUAL AIDS. DETAILED TREATMENT IS GIVEN TO SUCH AIDS AS DIAGRAMS, MODELS, AND ILLUSTRATIONS. EMPHASIS ON THE TEACHER'S PERSONAL QUALITIES, ACTIVE COMMUNITY LEADERSHIP, AND EFFECTIVE TEACHING TECHNIQUES ILLUSTRATES ELEMENTS FOR SUCCESS OVER PEASANT PREJUDICE TOWARD SCHOOLING. (THE DOCUMENT INCLUDES OECD SALES AGENTS AND OTHER PUBLICATIONS IN THE DEVELOPMENT PROBLEMS SERIES.) (PT)

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PROBLEMS OF DEVELOPMENT

adult education techniques in developing countries

A GREEK CASE STUDY

by
Pierre FOURRÉ

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PROBLEMS OF DEVELOPMENT

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It would seem that some of the documents produced for this programme (reports, studies, papers) might usefully be made available to the economists, administrators and other persons who take an interest in the problems of countries in process of development.

Such is the aim of this series :

" PROBLEMS OF DEVELOPMENT "

PROBLEMS OF DEVELOPMENT

adult education techniques in developing countries

A GREEK CASE STUDY

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ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT

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FOREWORD

The education of adults is an essential but complex task which is of primary concern to the governments of all nations whose educational system is not yet fully developed.

As a foreigner who has worked for more than four years in Greece, may I say that this country could take a high place in this competition — a friendly one this time — between the nations. The reasons are simple, but striking for anyone who can judge by what he has observed elsewhere. In the first place, the people of Greece are one and all imbued whit that evident desire to learn, that intellectual curiosity, so difficult to create and without which our work soon becomes impossible. Secondly, the teachers and educational inspectors have the qualities which are indispensable to enable them to carry out among adults the work with which they have been entrusted by the Government: they have an understanding of the part they can and must play in the country's development, a professional conscience and a devotion to the cause.

The rest is relatively simple, since it is only a matter of acquiring techniques. Those recommended here have been successfully employed in the best centres of adult education in the country, and should now be extended over the entire network. We are grateful to all those who have helped to perfect them by their daily efforts and their enthusiasm.

Yet in order to give a new impetus to adult education in Greece, and to help the large numbers of new teachers who will be joining our movement, it was thought best not only to condense the experience of all concerned, but to enlarge it by taking into account all the researches that have been carried out throughout the world. This is also the aim of the pages which follow. May they be of use to all those who, in this country rich in history and in hope, have chosen this fine profession: education.

Pierre FOURRÉ.

The problem of adult education in Greece is still a difficult one, and any assistance in solving it is much appreciated.

This study by Messrs. Fourré and Theodossopoulos is therefore justified in itself, and we could not but welcome it. This welcome is all the more deserved, since their study is a positive contribution to adult education, both because it is based on a long and successful series of experiments and, even more important, because the authors have shown imagination and given to creative thought the place which it deserves.

During the four years he spent in Greece as an expert from UNESCO, Mr. Fourré made an important contribution to the Government's efforts to educate peasants in the country's adult centres, some 300 in number. In particular, he collaborated on the Epirus experiment whose success is acknowledged by all, and which has enabled solutions to be found to the main material problems.

All these solutions affecting the organisation, working, and syllabus of the Centres are summarised in the following pages in the clear and precise manner characteristic of the authors.

Naturally, the methods suggested for the education of adults could not all be new ones, and among those set out here will be many that are already known to our teachers. Nevertheless, their skilful presentation, and the many examples which clarify them, are essentially creative and make this "guide" a very useful work which has come at the right moment.

A. PAPACONSTANTINOU,
Director of the Centre of Research on adult education. Senior Educational Adviser.

The author would like to thank Mr. A. Papaconstantinou, Senior Educational Adviser, Director of the Centre of Research on adult education, for his advice and constant help, as well as Mme H. Malafeka, head of the Epimorphossis service, who has done so much for adult education in this country.

PART I

GENERAL PROBLEMS

WHAT IS ADULT EDUCATION ?

Any comparison between the countries of the modern world shows great differences in their general level of development and consequently in the living standards of their inhabitants.

Some countries, favoured by their climate, the riches of the soil, and a stable political and administrative structure have now passed into the age of the atom and the rocket. Others, owing to difficulties inherent in their geographical position or their history, have not yet achieved their industrial revolution, or are only at the beginning of that stage.

Education reveals the same differences; some countries are educationally under-equipped, some belong to an intermediate category and some have a highly developed educational system.

The first category includes many African and Asian countries (with a high rate of illiteracy and far too few primary schools) while the third category is that of the great nations of the modern world.

Like several other countries in the Mediterranean basin, Greece is in the intermediate group. Generally speaking, the main features of the countries in this group are:

1. Residual illiteracy among adults who were too old by the the time a sufficient primary school network had been organised. Here the illiteracy rate is low: about 15 to 20 %.
2. Considerable semi-illiteracy (30 to 40 %). (The term is applied to adults and young people who have not completed their primary school course and have more or less forgotten what they learned.)
3. The fact that the standard of education attained by the literate population does not exceed primary school level.

While they are engaged in developing their primary and secondary schools (a process which can hardly be accelerated beyond certain limits) the countries of the intermediate group have to meet a number of urgent problems, i.e.

— eliminate illiteracy,
— overcome semi-literacy,
— raise the educational level of the population as a whole.

The term "adult education" can be used to designate all the steps which have to be taken to achieve this objective.

ADULT EDUCATION IN GREECE

Although adult education is a world-wide undertaking it assumes different forms in different countries. In countries where a large proportion of the population is unable to read, adult education largely centres on the elimination of illiteracy but in Europe, for example, its main emphasis is on the organisation of leisure or more advanced vocational training.

The education of illiterate people and the less-favoured classes of the population generally is a long-standing problem in Greece. Originally, this work has mainly been undertaken by private groups, The Society for Greek Studies, The Association "Le Parnasse", The Greek Providence Society, The Greek Secondary School for Women and The Piree Association being only some of the principal groups. For its part, The Royal Foundation, which had undertaken enormous work in other fields, was equally engaged in this question.

In the last few years however, adult education has taken on an official character and has been brought under the control of the Ministry of Education assisted by UNESCO[1].

Adult education now depends on the Epimorphossis Department which is responsible for all administrative and financial matters. This department is assisted by a research centre whose work is purely scholastic, i.e. it designs equipment, trains teachers, formulates syllabuses, and supervises adult education centres.

Among the various adult education schemes used in different countries, the adoption of a network of Centres seems to have been justified in that it meets the country's requirements and potentialities.

These Centres are situated outside towns. The intention is to set up "people's universities" in the towns as their syllabuses and procedures are more suitable for urban populations.

After four years of research, experiment and discussion with local organisers, inspectors and technical advisers from the different services, we now have a clearer idea of the responsibilities of these Centres and the type of education they must provide.

The aim of the Centres is to promote village development and enhance the living standards and the educational level of the population. As a forum for all specialists working towards this goal, they are "popular Centres" in every sense of the word. Their administration and general atmosphere are the responsibility of the local primary school teacher who is particularly qualified for this task by his vocation and standing.

As the following pages will show, we do not feel that adult education ought to be purely scholastic in its approach i.e. limited to working through a syllabus, irrespective of what is being done in other spheres. Indeed, adult education has been a success, as the steady attendance figures prove, because it has nothing in common with day schools and because it has been designed to run on sound, competent lines as part of the economic development drive and the vast movement to modernise the country which is going forward with the willing assistance of the public as a whole.

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[1] Evening classes are considered to be outside the scope of adult education as their methods and syllabuses are those of the day schools.

CAN ADULTS LEARN ?

The first question which arises in connection with adult education is whether adults are still able to learn.

Many people think that there is a period of life i.e. the school age, which is devoted to learning and that subsequently one can more or less live on what has been acquired during that period.

If this opinion is more carefully examined it is found to be less peremptory than it appears; almost everybody is prepared to admit, from experience, that education is a more or less lifelong process.

Adults are quite ready to acknowledge that they are capable of learning anything connected with their occupation and generally speaking anything of a practical nature. But unless they are of an intellectual turn of mind, they believe themselves incapable of studying anything abstract, methodically taught from a blackboard or books, as at school.

This outlook is no doubt the result of certain more or less unpleasant recollections left over from their experience at school, but it originates in the conviction that the educational system is inadequately adapted to train people for an occupation and that, as school is reserved for children, it is humiliating to go back to school as an adult.

Further discussion draws the admission that even non-intellectual adults can grasp the theoretical rudiments of electricity, geometry, spelling and grammar which are required if one is to become, for example, a skilled worker or foreman.

This does not settle the matter, however, because the adults referred to are those who have done a normal school course. Does it also apply to illiterates or semi-illiterates whose intelligence is restricted to coping with the problems of everyday life ?

The results regularly achieved in Greece (2,000 trained in our Centres in 1962) and the results of the many adult education experiments throughout the world make it possible to give an answer in the affirmative.

As already remarked, adults have a prejudice against the idea of returning to school and many people, asked if they would be prepared to attend a Centre, say they would not or at any rate show little enthusiasm. Should, however, such a Centre open, with an attractive syllabus and lively meetings, it is quite likely that some of these very same people will be found among the participants.

The fact is that the peasant is a wary individual who is unwilling to commit himself in advance and considers that seeing is believing. The first step is to win his confidence.

Now this primarily depends on the qualities of the teacher concerned.

INSTRUCTORS FOR ADULT CLASSES

As any attempt to describe the right type of instructor for adult classes would turn into a description of the perfect man, it would be wiser not to try.

Would it be easier just to emphasize the main qualities required? At first sight, yes. But in actual fact, when one calls to mind certain teachers who have obviously been successful, there are as many points of difference as of similarity. One man might be a born teacher, another mainly an organiser who excelled in administering his Centre and finding the right assistants rather than in doing the job himself, a third had such natural powers of leadership that he was followed without question while yet another would be the contrary, i.e. unassuming, modest, always prepared to set the example : if he wanted the village to be clean he would start by cleaning in front of his own house and hardly seem to notice that little by little the others also put their hand to the broom and shovel.

If we add the physical dissimilarities we could not possibly imagine a less homogeneous group than these men would represent.

It is not such a bad thing to emphasize these disparities because adult education is like any other human undertaking: every man succeeds by his own qualities which are not necessarily those of his neighbour.

Beneath this diversity, however, there is bound to be at least one quality common to all the teachers referred to, i.e. a belief in what they are doing: we might even use a high-sounding phrase and say that they have a belief in their vocation. There is no substitute for that belief. In its absence, the most luxurious Centre and the most highly developed audiovisual equipment would soon prove useless. Such belief is proof against any difficulty: isolation, lack of money, absence of equipment or books and incomprehension are bound to be overcome one after the other.

This belief in his task gives the teacher the single-mindedness which helps him to acquire all the other necessary secondary qualities.

These qualities are many and varied and may be grouped under the following headings:

HUMAN QUALITIES

These are the most important. The teacher is first and foremost a man, in the full sense of the word, that is, one whose life can be an example to everybody. His work, his leisure, his family, and the community at large each have their separate claim upon him. He is respected and loved because he is the personification of human dignity. He realises that his own education has made him one of the leaders of the village: he is proud of the fact but he is even more aware of the obligations it entails.

Let there be no doubt about it, the teacher has his obligations: first, towards the community which he must know thoroughly and which he must help to guide towards a better future by staying at his post. He also has obligations towards the individual members of the community for whom he must be an example, a guide and a friend.

Throughout history, teachers all over the world have played an immense part in helping their fellow citizens and modernizing their countries. More than all the others, teachers who specialise in adult education must continue that task for theirs is the surest contribution to progress.

PROFESSIONAL QUALITIES

Not only must the teacher be a man, but he must also be a good teacher.

As a good teacher he will have the curiosity which makes him ever ready to acquire knowledge; the urge to teach i.e. to be always willing to pass on to others what he knows; a natural sense of psychology which enables him to understand his pupils, bear with their shortcomings, stimulate their interest and talk a language they understand; the modesty which is the result of a daily realisation of his own ignorance. He will have the patience of a man who spends most of his life in tireless repetition. He will be lucid, methodical and invincibly persevering because he knows that the cultivation of the human mind is the most delicate but also the most rewarding of all undertakings.

THE ADULT CENTRE

The teacher's task will be greatly facilitated if he can work in premises where his adult pupils feel at home. Such premises do exist

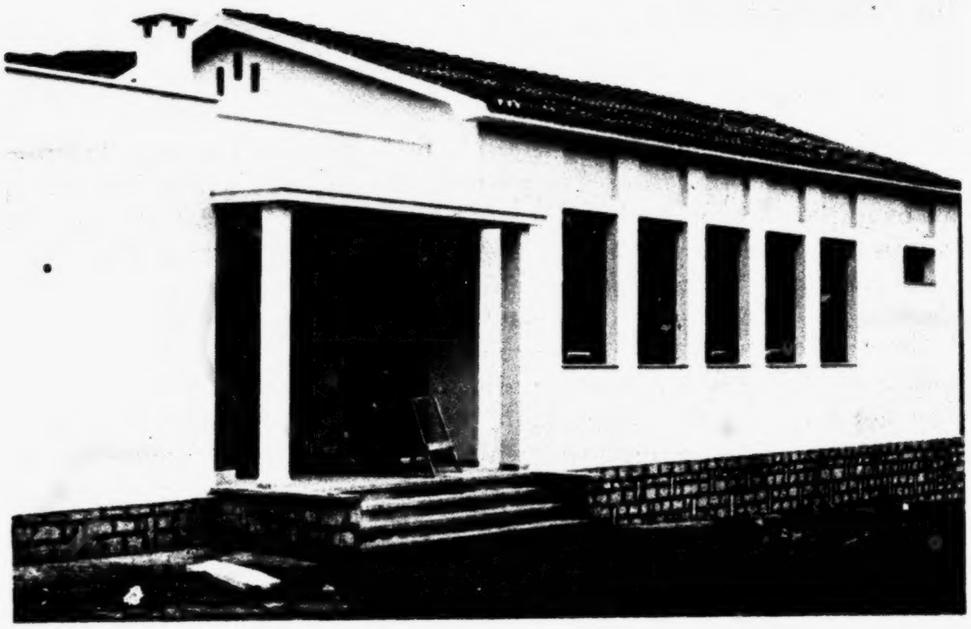


Figure 1. *Photograph of the Paracalamos Centre (Epirus).*

but are unfortunately very rare. The accompanying photograph is exceptional and will continue to be so for a long time. It can, however, serve as a guide to teachers in their research for satisfactory premises.

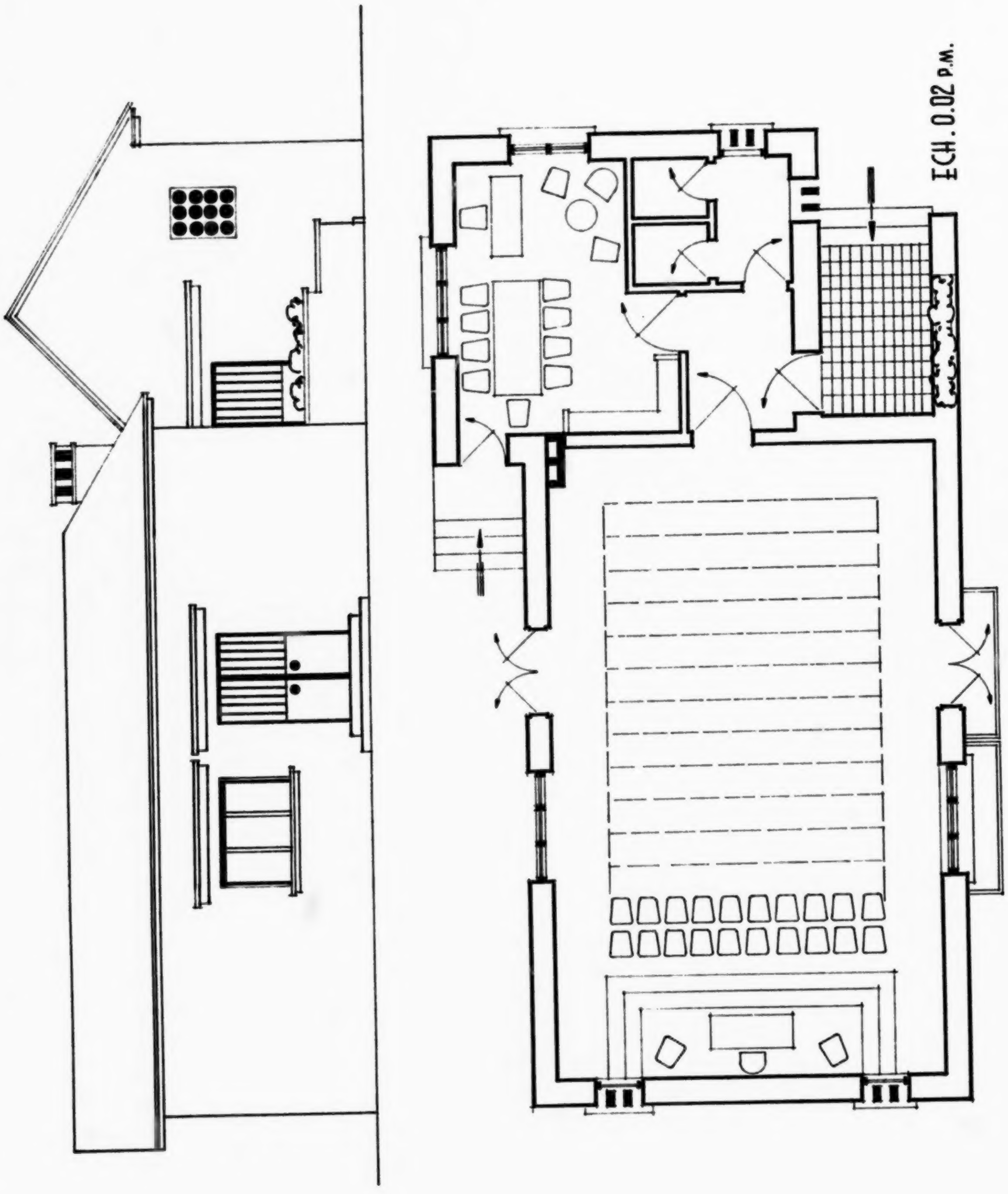
The ideal adult Centre must have a large hall which can be used for general meetings, film projections, festivals, etc... and be able to seat several hundred people, according to the size of the village. Screens should be available to partition off sections of the hall. One or two small adjacent rooms will be required for the office, the library, the workshop and the youth club. The Centre should also have a few simple but adequate sanitary installations which can be used as a model. Near the Centre should be a small patch of ground for experiments in gardening and for use, perhaps, as a sports field.

If he cannot obtain credits for a special building, the teacher must try, in agreement with the mayor, to find one or more unused rooms. He may also enter into an arrangement with the organisers of a "Queen's Fund Centre" for a Young Farmers' Club to use their premises during certain hours.

If this is impossible, he will have to hold his adult classes in one of the rooms at the primary school. This is by far the least satisfactory solution, first because it will give the adults the feeling that they are going back to school, which is what we want to avoid, and also because nothing in the way of permanent installations can be set up and the evening meetings are likely to leave the premises untidy.

Figure 2. ***Plan of a Centre.***

Plan laid out by the Epirus Project (Ministry of Co-ordination)



As soon as he has even temporary premises the teacher must set about arranging, equipping and decorating.

Little by little he will get together the essential furniture, i.e. tables, chairs, benches, a cupboard for the books, another for the Centre's museum, scientific collections, etc.

At the same time he will begin making or buying the necessary educational equipment: a notice board, a felt board and, as soon as he can obtain it, a lantern for projecting slides, a wireless set, a pick-up, a tape-recorder and even a film projector for 8 or 16 mm. films.

It would also be a good idea to acquire a small stock of equipment for his programme of manual work, e.g., woodwork, gardening, bricklaying, etc.

RUNNING THE CENTRE

Generally speaking, Centres have so far functioned for six or seven months in the year, i.e. from October till early summer. Although it is natural for courses to come to an end when the peasants begin to be busy in the fields, recreationary activities ought to be able to go on all through the year, although this presupposes some increase in the adult educational budget.

During these seven months, Centres are generally open two evenings a week for two or three hours at a time, plus Sunday afternoon for recreation purposes. The timetable is a matter which teachers have to settle in the light of local conditions. The important thing is that the villagers should know exactly when they can go to the Centre and it is therefore preferable to arrange regular meetings even if this may mean organising additional ones when necessary.

In the course of the year, the teacher should arrange a number of ceremonies or festivals, i.e. the opening of the Centre, the end-of-year fête or the organisation of an exhibition or sporting events which will draw a bigger audience than the ordinary courses and will give the villagers a fuller idea of what adult education is.

THE CENTRE COMMITTEE

To stimulate the Centre, make it a real part of the community, and avoid the burden of running it alone, the teacher will seek the support of a small committee. This may be composed of six or eight important members of the village who will be elected as representatives by the adults registered for regular courses.

The committee will not be concerned with the actual teaching. Its main purpose will be to advise the teacher and to relieve him of a number of duties. Sub-committees can be formed consisting of younger people who could do clerical work, organise the library, recruit voluntary instructors, make a special collection for a fête, etc.

THE ADMINISTRATION OF THE CENTRE

This must not give the teacher too much extra work, some of which may even strike him as pointless. Even if administrative duties are reduced to a minimum, experience has proved that there are two books which must be regularly kept up to date to show precisely what has been achieved and how the teacher's efforts have been received.

The first book will be a register, started at the beginning of the year, of all the adults who have expressed a wish to follow the courses. The book will also record the defections as and when they occur together with their causes, i.e. lack of interest, sickness, departure from the village, etc.

The second will be a diary showing the date of each meeting, what was taught and by whom and the approximate attendance.

In this way at the end of the year the teacher will be able:

1. to work out a number of very useful indices:

$$\text{index of attendance} = \frac{\text{number of registered pupils}}{\text{population of village (above school age)}}$$

$$\text{index of regularity} = \frac{\text{number of pupils attending at the end of the year}}{\text{number of pupils registered at the beginning of the year}}$$

2. give an account of his teaching
3. provide any reports he may be asked for and answer the annual questionnaire from the Central Department.

WHO CAN HELP WITH THE TEACHING ?

The teacher cannot do everything on his own, nor can he be omniscient. He will therefore have to have some help in order to make his teaching fuller and more varied.

REGULAR INSTRUCTORS

These will mainly be the doctor, the midwife, the nurse, the welfare worker, the official advisers in domestic economy, agriculture and craft activities, i.e., all officials whose work has an educational aspect.

They will come regularly to the Centre and give a series of talks followed by discussions.

The teacher can also enlist the aid of the civil, military and religious authorities in the village and even from the surrounding districts.

OCCASIONAL INSTRUCTORS

These may be very numerous, each dealing with a specialised subject. The following may be quoted as an example:

Crafts:

What can a man know better than his own occupation, and what can interest him more than the work to which he devotes three quarters of his active life?

The teacher will therefore get the blacksmith or joiner to agree to a visit to their forge or workshop and will get them to talk and answer questions amidst the tools of their trade and their familiar surroundings.

In the same way, a skilled embroideress will not only interest the other women in her craft but will probably also agree to teach them a few stitches and thus form a small but very enthusiastic sewing group.

The same will be true of the electrician, and the local motor mechanic specialising in agricultural machinery, if there is one.

But the people likely to interest our adult pupils most are the farmers — because that is the occupation of most of the pupils.

Any farmer or breeder practicing new techniques ought to be able to give his fellow citizens the benefit of his experience. Here the range of available subjects is very great. It might be a case of a farmer who has irrigated a piece of land on which nothing has hitherto grown, or used chemical fertilizers or changed his implements or succeeded in improving his breeds of livestock, etc., describing his difficulties and ultimate success at the Centre or, better still, in his place of work, and giving details of crop figures, costs, time spent, etc.

Many other people can interest adults with an account of their occupations. Railway workers, lightermen, trailer owners, traders, managers of workshops or factories can give talks on how tinned food, fabrics, chocolate, oil, are manufactured, how cotton is ginned, etc.; regional officials from the electricity, gas or water services, radio employees, editors of local newspapers, lawyers, chairmen of various associations, insurance agents, etc. Admittedly, all these potential instructors are not to be found in every village but some undoubtedly will be or, if not, can be found in the nearest small town.

Travel:

Nowadays, people travel more and more and anybody who has come back from abroad or from some distant part of Greece is a potential lecturer. It will be still better if he has taken a few photographs or brought back a few postcards, to illustrate his talk. Otherwise an effort can be made to find him newspaper photographs or tourist agency publicity folders which will be just as good.

Hobbies:

Many people spend their leisure exercising a second occupation. Anglers, stamp collectors, hunters and trappers, handymen and sports enthusiasts are everywhere to be found and any of them will be only too happy to come and talk about his favourite pursuit.

This suggestion should not be disregarded, because many people who have not found satisfaction in their daily occupation are apt to concentrate all their enthusiasm, patience and intelligence on some hobby. A minor official or an ordinary workman may well turn out to be a competent amateur botanist, no mean musician or a radio enthusiast whose services will be much appreciated.

SYLLABUSES

The adult education syllabus may be divided into several main sections:

- — the drive to eliminate illiteracy or semi-literacy.
- — general education, civics and ethics,
- — technical education,
- — hobbies.

These sections are all of equal importance and should be developed consistently.

I. DRIVE AGAINST ILLITERACY AND SEMI-LITERACY

1. *Justification*

The need to fight illiteracy and semi-literacy is now everywhere acknowledged. It is obvious that illiteracy is a social disease just as much as undernourishment and no country can hope to be great and play a part in the modern world if a proportion of its population cannot read or write or can only do so with difficulty.

Despite the part played by audio-visual media in modern life and the fact that our civilisation is becoming increasingly "picture minded", books will continue to be the cheapest and most usual way of disseminating knowledge for a long time to come.

One of the essential tasks of adult education is to enable all semi-literates and illiterates to read properly, fairly rapidly and with understanding.

2. *Techniques*

To do this successfully, the teacher will do well to follow the following scheme and use the handbooks and brochures specially edited by the Ministry for Education.

		Aim	*Audience*	*Equipment*	*Duration*
"Epimorphosis" Department	Stage 1	Acquiring the basic skill	Illiterates	Part I of the adult reading book	47 lessons 6 months[1]
	Stage 2	Further to stage one	Ex-illiterates and slow semi-literates	Part II	14 lessons 2 months[1]
	Stage 3	Ease in reading	Semi-literates	2nd Reading book (under preparation)	
	Stage 4	Use of ability to read with ease for general and technical education, information and recreation	All adults	"Popular education" collection	Unlimited
Libraries	Stage 5	Access to newspapers, library books		Village libraries	

1. At the rate of two lessons a week.

3. *Adult reading primer* (Figures 3 and 4)

This handbook has been prepared by a committee composed of Mme Malafeca and MM. Fotinapoulos, Haralempides, Papaanvréon, Papaconstantinou and Theodosopoulos.

Information on the use of this book can be found in the "Guide to the use of the adult reading primer", (a work by the same committee). Here is a very brief summary.

General features

Use is made of the "mixed" method which starts by teaching adults to read each word as a whole and then goes on to analyse it (breaking it down into syllables and letters).

Each lesson is based on a key sentence which included the key word, the first letter of which the adult has to learn with the help of an illustration.

For example, the page reproduced here contains:
- the key sentence,
- the key word,
- the letter.

The vocabulary of the primer is limited to 404 different words, of which 164 are taught in book 1.

The lessons are centred around points of interest:

Part one: 1. The peasant family
2. Occupations
3. Family occasions
4. A family of town dwellers
5. National festivals

Part two: 1. Family life
2. Agriculture
3. Village life
4. Religious ceremonies
5. The town
6. Our country.

Part II does not introduce many new difficulties but is composed of interconnected reading matter. This gives the adult the feeling that he is really reading and not just doing reading exercises.

How to conduct a lesson

1. Study of the illustration (applying the procedure mentioned elsewhere in this book).
2. Reading. The text is first read by the teacher who then gets the pupils to read. At the beginning it may be copied on to the blackboard. The teacher then closes the book and does the first exercise using a pointer to indicate the words he is reading. He then rubs out the blackboard text and does a second exercise with the book open.
3. Oral exercises. The object here is to find the key word and key letter (either a capital or small letter) in each sentence. The same process is used later to find the key sentence.
4. Written exercises. At the outset these exercises should be prepared by the teacher and either reproduced by hand or hectographed. Here are a few suggestions for exercises:

Sentences to be completed: At the beginning the pupils are helped: they are given five sentences for example and five words which have to be added to them.

Words to be completed: Words without a final or initial letter or short of a syllable.

Answer simple questions by yes or no.

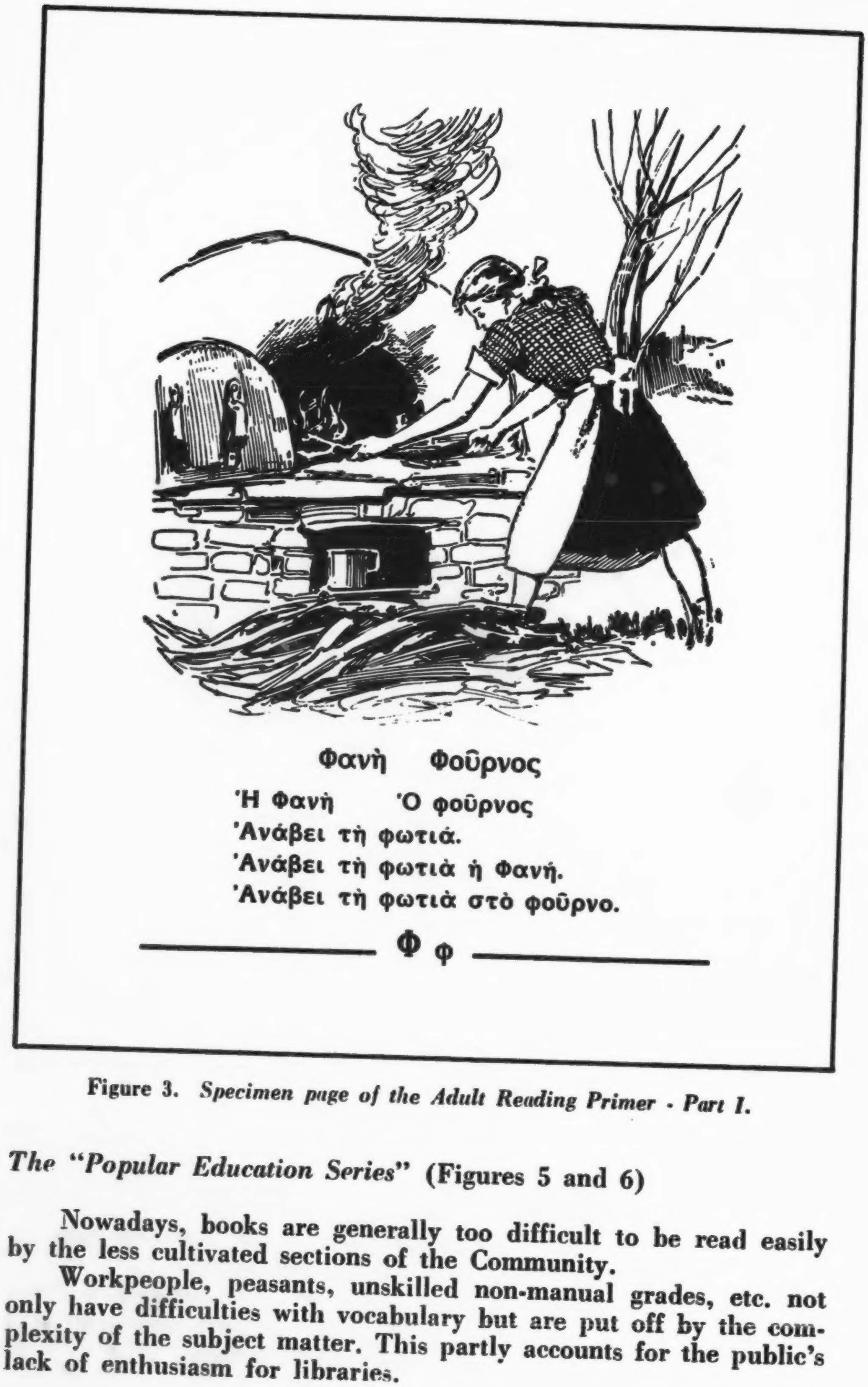
In a passage, underline the word emphasized by the teacher.

In a list of words, underline those repeated several times.

In a text underline the key letter.

Writing: The pupils are told to copy the key letter, key word and key sentence.

Part II includes lessons in comprehension (more complicated questions, sentences to be reshuffled in logical order, etc.).



Φανὴ Φοῦρνος

Ἡ Φανὴ Ὁ φοῦρνος
Ἀνάβει τὴ φωτιά.
Ἀνάβει τὴ φωτιὰ ἡ Φανή.
Ἀνάβει τὴ φωτιὰ στὸ φοῦρνο.

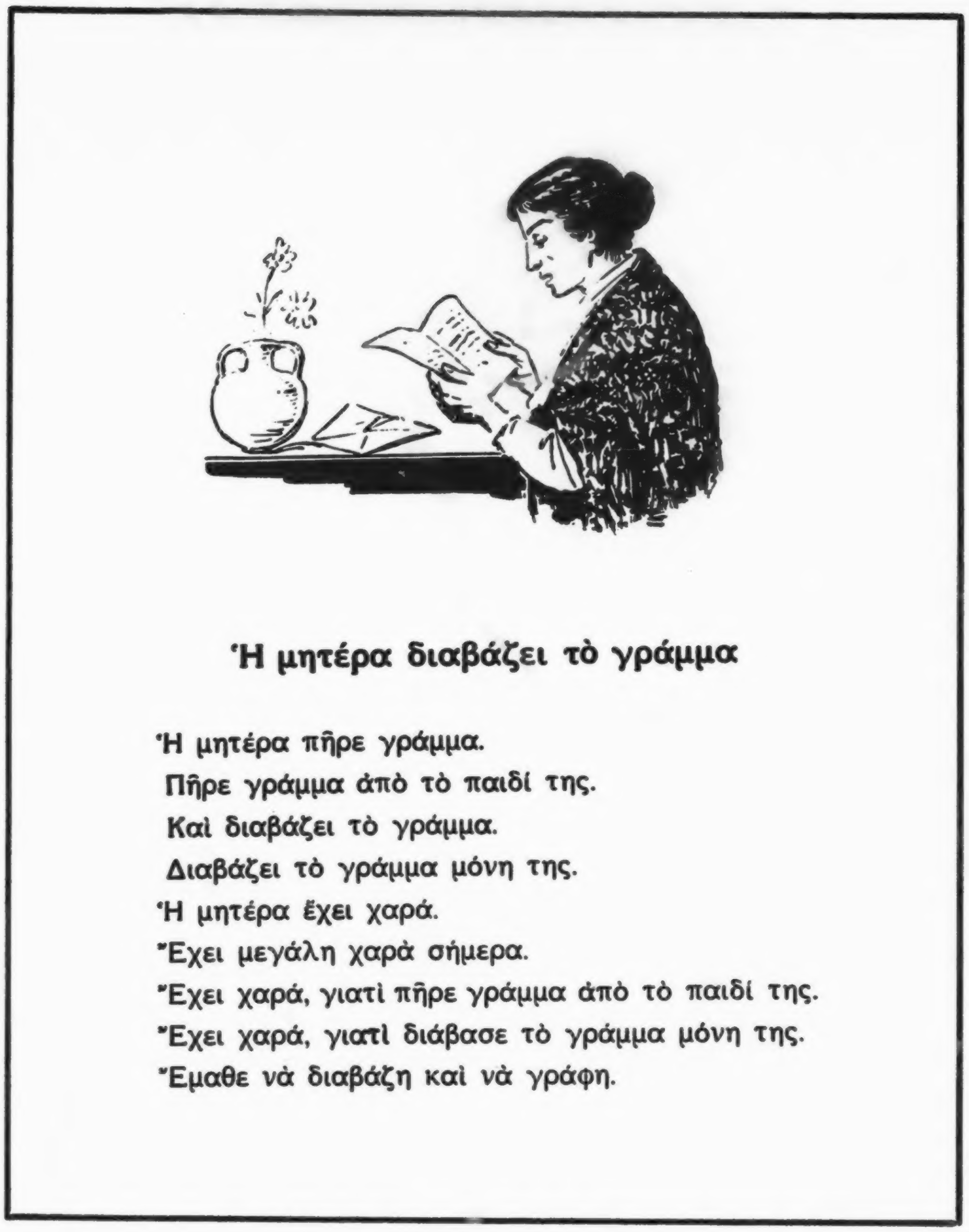
Φ φ

Figure 3. *Specimen page of the Adult Reading Primer - Part I.*

The "Popular Education Series" (Figures 5 and 6)

Nowadays, books are generally too difficult to be read easily by the less cultivated sections of the Community.

Workpeople, peasants, unskilled non-manual grades, etc. not only have difficulties with vocabulary but are put off by the complexity of the subject matter. This partly accounts for the public's lack of enthusiasm for libraries.



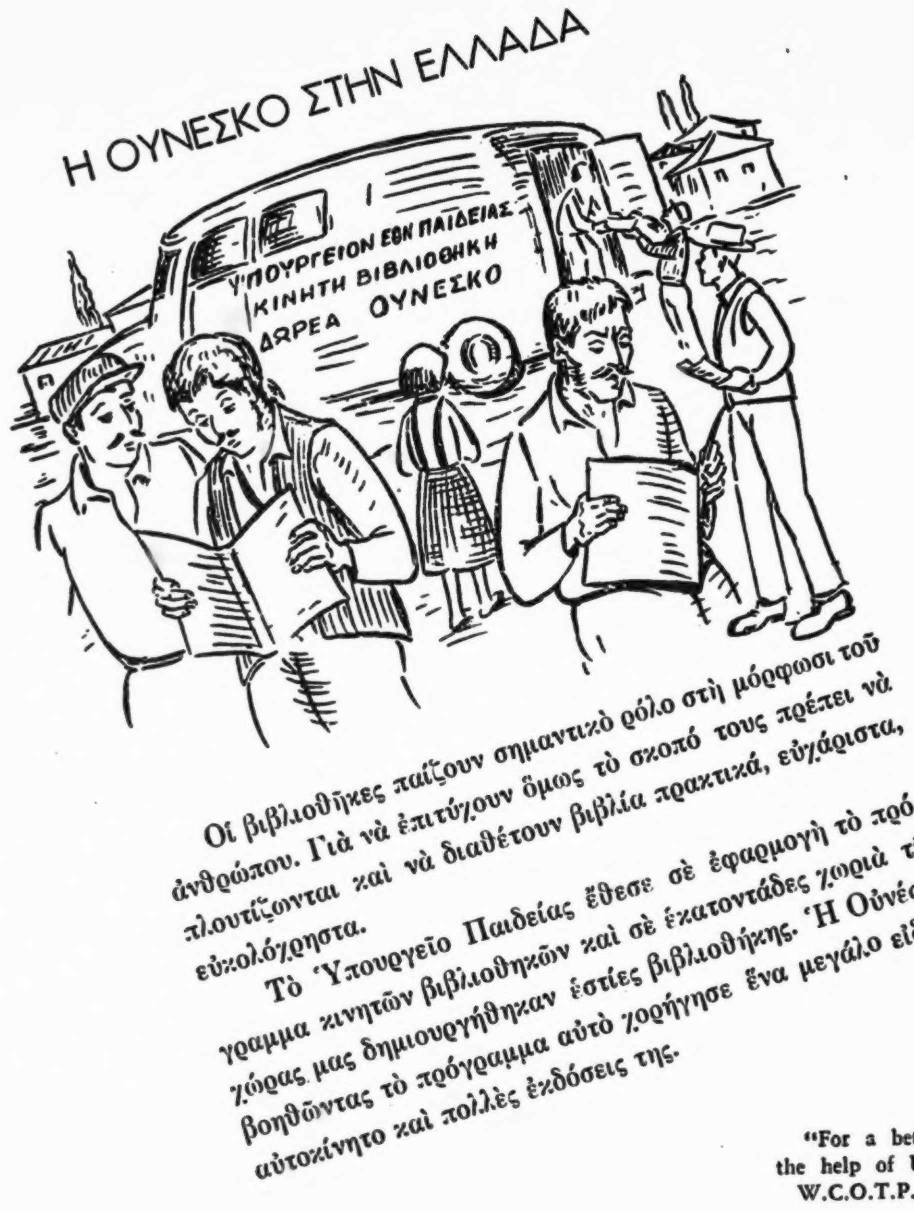
Ἡ μητέρα διαβάζει τὸ γράμμα

Ἡ μητέρα πῆρε γράμμα.
Πῆρε γράμμα ἀπὸ τὸ παιδί της.
Καὶ διαβάζει τὸ γράμμα.
Διαβάζει τὸ γράμμα μόνη της.
Ἡ μητέρα ἔχει χαρά.
Ἔχει μεγάλη χαρὰ σήμερα.
Ἔχει χαρά, γιατὶ πῆρε γράμμα ἀπὸ τὸ παιδί της.
Ἔχει χαρά, γιατὶ διάβασε τὸ γράμμα μόνη της.
Ἔμαθε νὰ διαβάζη καὶ νὰ γράφη.

Figure 4. *Specimen page - Part II.*

In the case of people who have only just become literate these difficulties are still more pronounced. The newly literate cannot read the technical literature usually available. In a number of countries this has led to the publication of small collections dealing with subjects of direct interest to adults and in an easy style.

The "Popular Education Series" is one of these collections and is bound to become the teacher's most useful and effective instrument in giving adults practice in and a taste for reading.


ΥΠΟΥΡΓΕΙΟΝ ΕΘΝ ΠΑΙΔΕΙΑΣ
ΚΙΝΗΤΗ ΒΙΒΛΙΟΘΗΚΗ
ΔΩΡΕΑ ΟΥΝΕΣΚΟ

Η ΟΥΝΕΣΚΟ ΣΤΗΝ ΕΛΛΑΔΑ

Οἱ βιβλιοθῆκες παίζουν σημαντικὸ ρόλο στὴ μόρφωσι τοῦ ἀνθρώπου. Γιὰ νὰ ἐπιτύχουν ὅμως τὸ σκοπό τους πρέπει νὰ πλουτίζωνται καὶ νὰ διαθέτουν βιβλία πρακτικά, εὐχάριστα, εὐκολόχρηστα.

Τὸ Ὑπουργεῖο Παιδείας ἔθεσε σὲ ἐφαρμογὴ τὸ πρόγραμμα κινητῶν βιβλιοθηκῶν καὶ σὲ ἑκατοντάδες χωριὰ τῆς χώρας μας δημιουργήθηκαν ἑστίες βιβλιοθήκης. Ἡ Οὐνέσκο βοηθῶντας τὸ πρόγραμμα αὐτὸ χορήγησε ἕνα μεγάλο εἰδικὸ αὐτοκίνητο καὶ πολλὲς ἐκδόσεις της.

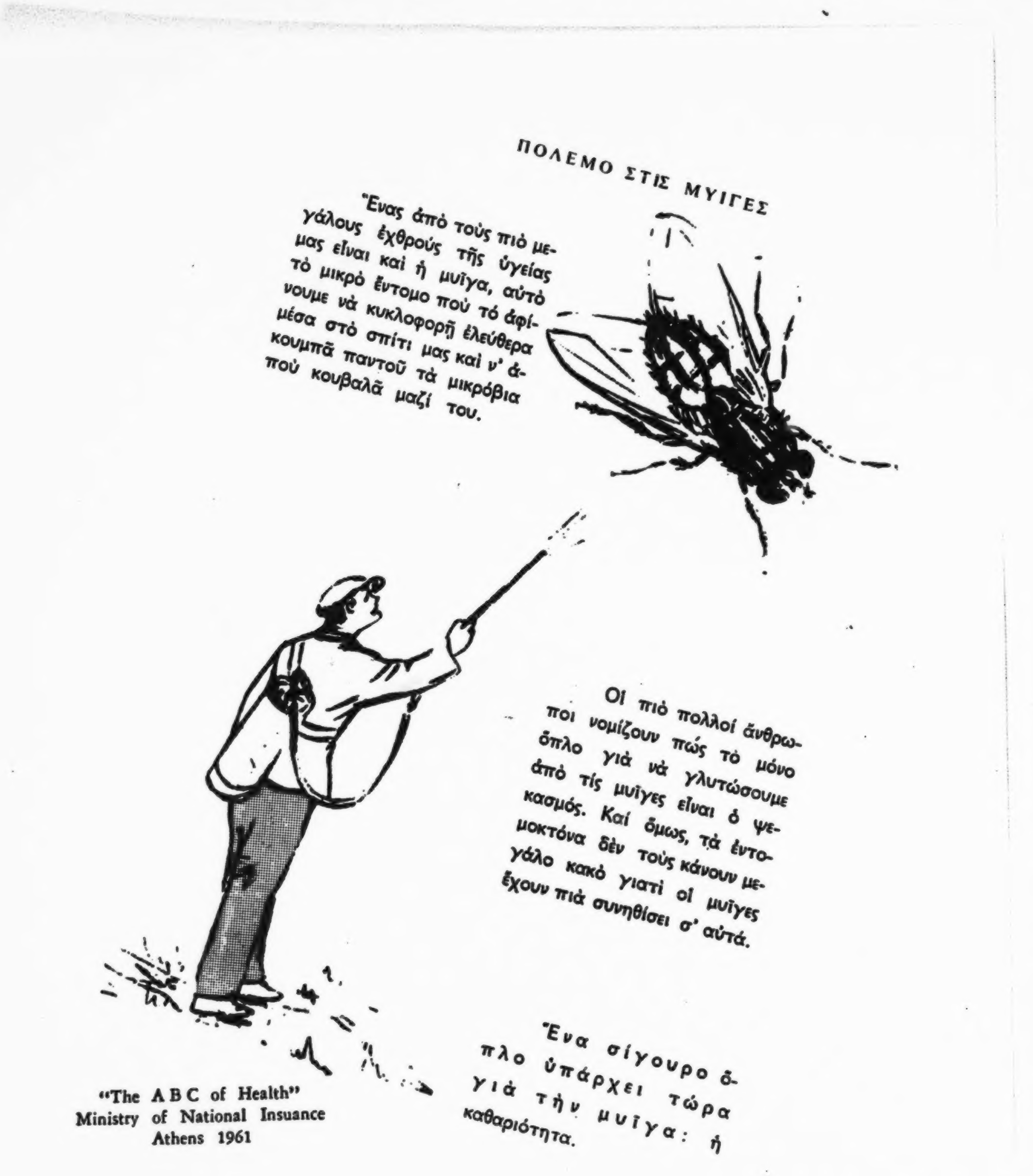
"For a better life with
the help of United Nations"
W.C.O.T.P. Athens 1962

Figure 5. *Specimen page.*

How to use the books in the series

Presentation:

Whenever possible the teacher should arrange to have each book introduced by a specialist (agricultural engineer, doctor) at a meeting where he will comment on its subject matter.



ΠΟΛΕΜΟ ΣΤΙΣ ΜΥΙΓΕΣ

Ἕνας ἀπὸ τοὺς πιὸ μεγάλους ἐχθρούς τῆς ὑγείας μας εἶναι καὶ ἡ μυῖγα, αὐτὸ τὸ μικρὸ ἔντομο ποὺ τό ἀφίνουμε νὰ κυκλοφορῇ ἐλεύθερα μέσα στὸ σπίτι μας καὶ ν' ἀκουμπᾶ παντοῦ τὰ μικρόβια ποὺ κουβαλᾶ μαζί του.

Οἱ πιὸ πολλοί ἄνθρωποι νομίζουν πώς τὸ μόνο ὅπλο γιὰ νὰ γλυτώσουμε ἀπὸ τίς μυῖγες εἶναι ὁ ψεκασμός. Καί ὅμως, τὰ ἐντομοκτόνα δὲν τοὺς κάνουν μεγάλο κακὸ γιατί οἱ μυῖγες ἔχουν πιὰ συνηθίσει σ' αὐτά.

Ἕνα σίγουρο ὅπλο ὑπάρχει τώρα γιὰ τὴν μυῖγα: ἡ καθαριότητα.

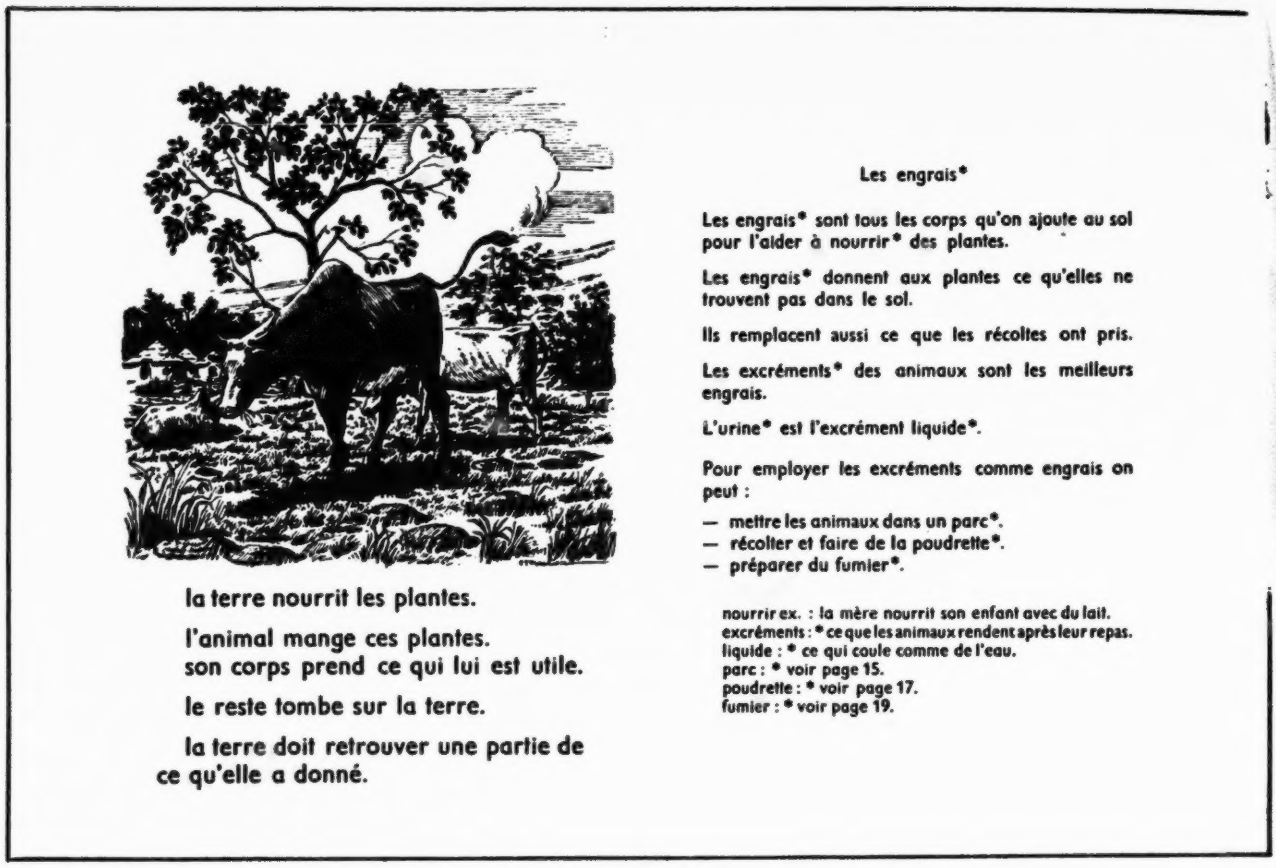
"The A B C of Health"
Ministry of National Insuance
Athens 1961

of Greek brochures.

Use of the series with semi-literates

If the adults have not yet reached the stage at which they can understand a book easily on their own it must be read in class and the difficult terms explained (particularly the technical terms).

Next come the oral exercises, questions, sentences to be com-



la terre nourrit les plantes.

l'animal mange ces plantes.
son corps prend ce qui lui est utile.

le reste tombe sur la terre.

la terre doit retrouver une partie de ce qu'elle a donné.

Les engrais*

Les engrais* sont tous les corps qu'on ajoute au sol pour l'aider à nourrir* des plantes.

Les engrais* donnent aux plantes ce qu'elles ne trouvent pas dans le sol.

Ils remplacent aussi ce que les récoltes ont pris.

Les excréments* des animaux sont les meilleurs engrais.

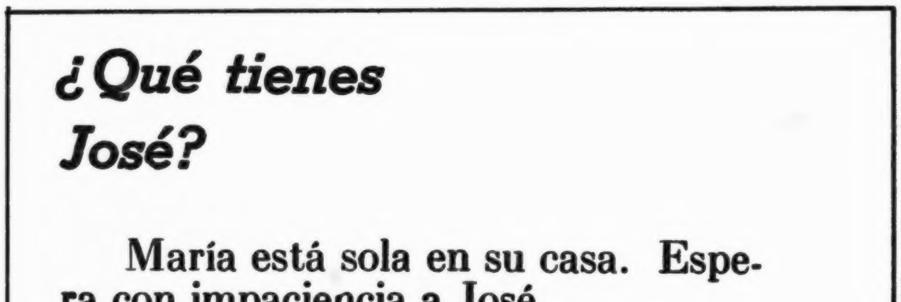
L'urine* est l'excrément liquide*.

Pour employer les excréments comme engrais on peut :

— mettre les animaux dans un parc*.
— récolter et faire de la poudrette*.
— préparer du fumier*.

nourrir ex. : la mère nourrit son enfant avec du lait.
excréments : * ce que les animaux rendent après leur repas.
liquide : * ce qui coule comme de l'eau.
parc : * voir page 15.
poudrette : * voir page 17.
fumier : * voir page 19.

J.L. Duval "Manure"
Didier 1959



¿Qué tienes José?

María está sola en su casa. Espera con impaciencia a José.

Desde hace días José llega tarde. Además se le ve como cansado.

María no comprende lo que le pasa a su marido. Hace tres meses que están casados y no se conocen muy bien todavía.

No ha habido ningún disgusto entre ellos. María siempre había visto a José muy cariñoso; pero desde hace días es distinto.

¿Querrá José a otra mujer? No. Ni pensarlo. No es posible. María

Figure 6. *Specimen pages of Foreign brochures.*

pleted and writing exercises based on a selected page (generally dealing with a specific subject).

Lastly, the contents of the book will be discussed, using a discussion group technique to be dealt with later.

Use with literate adults

The brochure is read individually at home. It is then reread, explained, commented upon and discussed at one or more classes held at the Centre.

It might well be possible to assemble the whole village for the discussion provided that the semi-literates have finished studying the text.

The Central Library

The Ministry's library service has done an excellent job by setting up, throughout the country, more than 1,000 book depots, which are periodically renewed and have met with great success. Obviously, wherever there is an Adult Education Centre, this is where the depot will be situated, as is the case in a certain number of villages. Thus, the teacher has control over the borrowing: this gives him the opportunity of guiding the village people in their choice of books, helping them to understand better what they mean, and to get an idea of what will interest them and the difficulties which they come across.

The teacher will add to these books pamphlets put out by various Ministries, by the Epimorphossis Service etc., and any which can be obtained as gifts or by purchasing them.

Expressive Reading[1]

This is a very effective method of interesting listeners in simple literary texts. It consists in reading aloud an extract from an ancient or modern author. Provided the text has been carefully chosen, and is delivered in an expressive way, the results will be even better than one could hope.

In general, it is easier to start with a play, and if one can choose a play that is being performed at Athens, the modernity will attract people.

Broadcasting services in various countries have put on series of "one-voice readings", and the author, having followed them regularly, knows how much interest they arouse.

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[1] It was the team of Italian Educationists who had worked on the Sardinia Project who drew our attention to the great interest of this technique. We should therefore like to express our thanks to them, and also to the "People and Culture" movement, which inspired them.

Recently, a modern comedy was performed in this way in Athens with great success, although the audience consisted of people who knew the play, some of them even having seen it performed. It would therefore be impossible to overstress to our teachers the importance of trying out this technique, no doubt a new one to them, and one which may considerably liven up the life of our Centres.

Choice of Text

This is the most important point. Anything the teacher offers his listeners must be easily understandable. The action and the opinions expressed must correspond to their experience of real life.

The language itself must be pruned of any superfluous refinements, and may also be simplified a little if necessary, (by replacing a word by a more colloquial synonym, and making a few cuts).

Finally, the pasage selected must be a whole entity, and end with something of a conclusion.

The reading can last from three quarters of an hour to an hour and a quarter, interrupted if necessary by a short interval.

Production

There are two schools of thought on the way in which these readings should be put across. One school is for giving a résumé of the text before reading it, explaining the sense, defining the characters of the protagonists, etc. This obviously makes it easier to understand, but at the same time it kills the interest. For this reason, the opposing school is not wrong in maintaining that it is preferable to read the extract without spoiling its freshness, and that any comments should come later. In our opinion, this depends on how difficult the text is. If it is sufficiently within the reach of the listeners, it should speak for itself; if not, an introduction should be provided.

However, this introduction should never be a paraphrase of the text, that is to say, there is no question of giving an account of what happens. It is merely necessary:

- — to give a résumé of what has happened up to now, what the characters have done and said, and what they want, what they hope for and what they fear;
- — to make it possible for the audience to understand the various possibilities open to the characters, by showing them the different ways in which the plot could turn out, but without revealing which course the author has chosen.

Thus one will be asking questions without giving the answers: will the hero do this or that? Will he accept or refuse what is offered to him? Will he succeed or fail in his venture? Thus the audience's thoughts are guided: it knows what points it must concentrate on, and its interest is aroused rather than destroyed.

It may also be useful to talk about the author's life, to recall the circumstances in which he wrote the work which is to be read, and so on.

Reading

The reading must be performed as a professional actor would do it. Better still, it is a good idea to act what one is reading a little, as the gestures help the audience to understand the text.

So far as acting is concerned, the difficulty when one is reading on one's own is that one has to play several parts, and the audience does not always understand what is going on. To avoid any confusion, it is best to introduce each speech with the name of the character speaking, in a neutral tone and a little less loudly than the rest of the text.

The production will be even more valuable if it is possible to get hold of as many readers as there are parts. It will often be possible to get the more educated people in the village interested in this task. If so, the actors will sit or stand, with the script in their hands, and will more or less act the scene. It is even permissible to make them enter and exit, to give an indication of their costume and supply the beginnings of scenery.

Admittedly, to get good results, it is necessary to train and rehearse. This is even indispensable for readings by a single voice: one-voice readings. The number of rehearsals depends on the text: five would seem to be minimum, very often a round dozen will be needed, and sometimes even more.

Résumé of the end of the story

The audience must not be left in the dark about the end of the story. In a few minutes the teacher should sum up the chapters following the one which has been performed.

After the Reading

It is interesting to follow the reading with a supervised discussion along the general principles mentioned in the chapter: a discussion group.

This exercise can be carried out immediately after the reading, but only provided there are not more than twenty people present. As this is seldom the case, it will be preferable to keep a class period some days later for this discussion.

The following points could be developed (*a*) by the teacher: Going over the life of the author and his other works. Giving information on the circumstances which motivated his work — (is it concerned with a personal problem, or with social events?).

(*b*) by the adult pupils

Excellent elocution exercises for adults (to which they will give a conversational character) will consist in:

- — giving a résumé of the work before the selected passage;
- — giving a résumé of the selected passage;
- — giving a résumé of the end of the work;
- — defining the problems which it raises;
- — explaining how the author resolves them;
- — studying the characters of the various personalities; (*c*) first by the teacher, then by the adult pupils.

Extending the discussion, that is to say, passing from the special case raised in the work to the general problem which it was expressing: this leads to education in morals and civics.

II. GENERAL EDUCATION (the teacher's responsibility)

Adult education cannot be confined to the above points. All members of the public must be able to complete their education, whatever this may have been. Adults must therefore be given an opportunity of acquiring a general education i.e. language, grammar, history, geography, arithmetic.

Here the teacher is on familiar ground and there is no need to describe the syllabuses in detail.

The only danger is that these subjects may be taught to adults in the same way as they are taught to children and especially that they may be handled too theoretically. The following points must therefore be stressed:

Language

The aim is to acquire a good knowledge of spelling and enough grammar to be able to write correctly, and to understand what one reads.

The lessons must always be practical and utilitarian: the pupils should be taught how to write and address short letters, and complete official forms.

Dictation should largely be dropped as it is too reminiscent of school life and such grammer exercises as: "put in the plural, put in the past, put in the future etc..." should be used sparingly. Lastly the vocabulary of the adults should be enriched by explaining the meaning of any difficult words encountered and familiarising their use.

Arithmetic

It is usually fairly easy to link the teaching of elementary arithmetic (including mental arithmetic) to adult requirements or interests.

Here are a few suggestions:

SUBJECT	TEACHING METHOD
Daily commercial transactions: buying, selling, calculating.	Revision (if necessary) of the decimal system and the four operations. (The best and most practical teaching media for this purpose is money). Once the significance of the four operations is understood it is easy to learn how to set them out, check them and use the multiplication tables.
Road construction.	Linear measurement.
Nut, olive and fruit harvesting.	Units of weight.
Building a house.	Squares, rectangles, properties of angles, sides. Area.
Measuring a field.	Rectangles and triangles and their properties. Area.
Rate of flow of a new spring, quantity of water required for a particular crop or animal.	Capacity measurement.
Result of the census or the elections. Space flights.	High numbers.
Telling the time.	The sexagesimal system.

Once these basic ideas have been assimilated, there will be many opportunities to study more complex problems drawn from everyday life i.e. book-keeping, practical use of the four operations.

SUBJECT	TEACHING METHOD
Selling a crop.	Production costs, earnings from crops, profit, loss.
Loan from the Agricultural Bank.	Percentage, rates of interest, capital.
Keeping farm books. Profit and loss account on poultry or cows.	The four operations, production costs, earnings from sales, profit, etc.

History

It is well known that history does not consist merely of a catalogue of dates, battles and treaties. This is even truer of history for adults. They must be taught to discover the living past, first of their own country then of others and to follow the march of civilisation through all the events of the past.

A visit to ancient ruins or the nearest medieval castle is an excellent point of departure for the syllabus.

The same purpose can be served by public buildings, places of historical interest, national festivals, statues of famous men, etc.

Use can also be made of some event in the international sphere which suddenly focuses attention on a particular problem. An outline can be given of the history of a particular country which has just achieved its independence while agitation by a minority is a good opportunity of explaining how the latter developed as an ethnic group.

The teaching of technological history is particularly rich i.e. development of lighting, transport, postal services, furniture, clothing, skilled crafts, housing, etc.

Geography

In geography, it is often worth while beginning by the study of the village or region, on lines which are already well known.

Here, too, teaching must not be too academic. A start can be made by studying a local river or the local climate in cases of drought or heavy rainfall.

Various aspects of human or economic geography can be discerned at village level, i.e. export of local produce, emigration of workers.

These affect every farmer and every family and advantage should be taken of the fact that adults are willing to study them.

Finally, such topical events as the eruption of a volcano which makes headlines in the Press, the inauguration of a new city (e.g. Brasilia) or an engineering feat (the Alpine tunnel between France and Italy, the future tunnel under the channel) should be discussed and will provide rich and lively material for a lesson.

Physics, chemistry, astronomy

In the same way that the teaching of history and geography can now be planned not as a complete syllabus but as slices of life, these sciences can be studied as and when the life of the village offers a suitable opportunity. As usual, we will begin by trying to find what interests the largest section of the population.

EVENT	SUBJECT
	Physics
Purchase of a tractor by a farmer (he should be asked to bring it to the Centre to explain how it works with the aid of the teacher).	Internal combustion and Diesel engines.
Installation of winding gear over a well. Use of block and tackle to raise a tree-trunk. Arrival of new tools in the village shop or cooperative.	Simple machinery: levers (different types). Tools using this principal. The winch. The block and tackle.
Electrification of the village.	Study of electricity: properties, storage batteries, their use. Storage: accumulators. Transmission: transformers.
Purchase of a pair of binoculars or a camera. Consultation with an eye specialist.	How an image is formed in a lens. Different types of lens. Laws of optics (expressed non-mathematically).
Use of microscope by a doctor as observed by the villagers.	Why microscopes give an enlarged image and why telescopes bring things nearer.
An eclipse. Launching of a rocket in the direction of a planet.	*Astronomy:* earth, the moon, the solar system, the stars, distance, colour. Constellations. A few facts about our galaxy.
Heating.	*Chemistry:* Study of combustion.
Accident prevention.	Composition of the air. Fuels: timber, charcoal, coal, origin, use, gas products.
Lighting.	Oil. Origin, Oil wells. Use. Why oil lamps have a glass.
Internal combustion engines.	Oil and gasoline. Origin. Extraction. Refining. By-products: coke, tar.
The sale of gas in cylinders.	Gas for lighting. How it is obtained.

Drinking water. Visit to a cave.	Chemistry of water. Composition. Salts in water. Stalagmites and stalactites.
Soap. Detergents.	Composition. How it works.
Making of wine, bread, cheese, yoghourt.	Simple food chemistry. The part played by ferments. Yeast.
Building a wall.	Chemistry of plaster and cement. Production. Setting.
Visit to a blacksmith, coppersmith, a tinsmith.	Metals. Properties. Working methods. Uses. Protection. Rust and corrosion.
Tarring a road.	Where tar comes from: petroleum chemistry.

Botany, geology, animal and human biology

These subjects must be taught in close connection with the syllabuses published by the agricultural and health services.

More is involved than merely linking up a number of separate subjects, i.e. plant life, types of soil, the main functions of the human body, which are part of general education and at the same time of agricultural or health training. They can be handled either by the teacher, the agricultural engineer or the doctor, provided that all three agree not only to avoid competing with each other but also dispersing their efforts, because the victims of any such mistake of this kind would be the villagers themselves.

To consider a few examples of this co-ordinated education:

SUBJECT	TEACHING
	Geology
Agricultural work.	The constitution of the soil: Types of rock.
Drainage, irrigation.	How to recognise them. Their main features.
Production and use of manure. Its sale to the co-operative association.	Consequence: need to improve soils, fertilisers, irrigation, drainage. How these processes act.
Violent prolonged rainfall forming gorges and gullies. River floods. Reafforestation. Terracing.	Erosion. Causes (wind, rain, frost, animals). Role of cover crops and trees.

	Botany
Improvements proposed by agricultural engineers in traditional crops. Purchase of selected seed.	Plant growth. Part played by the roots and leaves. Nutrition, growth, reproduction.
Cultivation and pruning of fruit trees. Planting of nursery saplings. Reafforestation.	Trees. Nutrition, growth, reproduction. Importance of pruning.
	Animal biology
Improvement in traditional breeding methods.	Animal anatomy.
Sick animals. Visit from the veterinary surgeon.	Nutrition.
Purchase of a selected animal. Visit to an artificial insemination centre.	Propagation. (See centre of interest: cattle breeding, page 61).
	Human biology
Regular visit to the doctor. Start of an epidemic. Mass vaccination.	Human anatomy. The skeleton. The main functions: nutrition, respiration, circulation. What illness is. How it is caught. Preventive measures, individual and collective hygiene, vaccination. Control: serotherapy - medecine. Practical consequences. What to do. Rules for good health.
Arrival of a D.D.T. spraying team. The campaign to build latrines and keep them in good repair.	What illness is and how it may spread. The part played by carriers: mosquitos, flies. Practical methods of prevention.
Tapping a spring. Installation of a centre for supplying the village with drinking water.	Drinking water. Why certain types of water are dangerous. What to do in such cases.
Consulting specialists: ear, nose, throat, eyes.	The sense organs. Description. Hygiene. Personal cleanliness.
Arrival of a tuberculosis detection team.	Tuberculosis (description of the disease). Its propagation. Prevention. Cure.

Civics and ethics (the teacher and local priest can be responsible for this).

The principles laid down for general education also apply to civics and ethics. The latter are all the more likely to be understood if they are linked to practical case histories and local or national events.

Political life, for example, offers many opportunities of showing how the country's institutions function, i.e. the respective roles of the King, parliament and government; how a bill is prepared and voted; organisation of the various ministries and main administrative bodies; the nomos, the community.

It is essential to explain how taxes are assessed and what they are used for (investment and operating budgets; local examples: a particular road or bridge financed from taxation).

In Greece, ethics must be taught conjointly with religious instruction. The teacher can also use part of the hygiene lesson to discuss the individual's duties to himself, as well as talk about the individual's duties to the family when dealing with the education of children, and he can refer to the local and national communities, and the need and utility of military services, etc., in the lesson on institutions.

The villagers will have an opportunity of applying the ethical principles they are taught when they are asked to accept such small responsibilities at the Centre as serving on the managing committee or in the library or as unpaid instructors.

Religious education (under the direction of the priest)

Religious doctrine, the Gospels, the significance of religious ceremonies.

History of religion, the saints, religious personalities in the area.

Role of the Church in the country's history and the present day.

III. TECHNICAL EDUCATION

The public for which adult education caters always includes a large number of farmers or breeders. The latter are understandably anxious to study their particular speciality and improve their skill.

Health problems are also of abiding interest, because one of the main concerns of a human being is to maintain or improve his health.

The teacher should therefore devote a large part of his time to hygiene and agriculture; as, however, he is not a specialist in these subjects he will have to hand over this responsibility to agricultural engineers, doctors and their assistants and take care not to encroach on their province.

The following list of subjects which can be dealt with in adult classes, was compiled at our request by the appropriate Greek specialists. There is, of course, no need to work through all these subjects in one year. Some can be given greater priority than others, as local conditions dictate.

Agricultural education (responsible: the agricultural engineer or forestry expert)

Fertilisers. Manure. Agricultural machinery. Irrigated crops.
Special crops: vines, cotton, olives, rice, trees, tobacca, cereals, dried fruit, fodder crops.
Breeding: cows, goats, sheep, poultry and bees.

Health education (responsible: the doctor, or mid-wife)

Nutrition. Value of the different types of food.
Milk. Fruit.
Work, rest, sleep, leisure.
First aid (theory and practice).
Accident prevention.
The role of the doctor.
Marriage and heredity.
Seabathing and sunbathing.
Alcohol, tobacco.
Mental health.
Care of new-born children.
Diseases: food poisoning, tooth troubles, malaria, typhoid, rabies, Malta fever, diphteria, whooping-cough, tetanus, poliomyelitis, trachoma, leprosy, cancer.

Domestic economy

Women are mainly interested in family and domestic economy. They are anxious to know to bring up their children better and protect them from illness, learn to sew, knit and embroider. All these subjects should be taught at the Adult Centre under the direction of the teacher's wife or some other woman teacher.

Women and girls should have a small workshop at the Centre with the necessary equipment, particularly sewing machines.

The aim is to achieve useful results rapidly i.e. learn to mend garments, make scarves, blouses, skirts and children's clothes rather than practice various types of stitching on small pieces of material which are then thrown away.

It is also a good idea to teach weaving to women who do not know the technique. It is often possible to find one or two women who have a loom and who are willing to form a group and become instructresses.

One of the minor difficulties in connection with these workshops is the purchase of the necessary materials. The simplest solution would seem to be for each woman to bring the material she needs: whatever she makes then becomes her own property.

Practical education

This will give the men a basic knowledge of electrical installations, elementary brick-laying and carpentry and help them to improve their skill in such crafts as are traditional throughout the country (pottery, wood carving, leather work, silver work, etc.).

For this purpose, the teacher should set up small workshops and induce local craftsmen to teach the rudiments of their craft. Care must be taken, however, to ensure that the local craftsmen do not come to regard these workshops as a competitive activity likely to reduce their earnings.

IV. HOBBIES AND SPORTS

We must not forget to make provision in our programme for useful and pleasant hobbies. Life in the country is all too often uneventful and the possibility of entertainment is certainly one of the reasons for the drift to the towns.

With the help of the villagers, the teacher should organise little plays and marionnette or lantern shows for the children (based on the Karaghiose shows), choir-singing, folk dancing, ballroom dancing, excursions, games, comic races, athletic competitions, football matches, etc.

THE RULES OF GOOD TEACHING

Whether it is history that is being taught or the improvement of agricultural techniques or the make-up of the atom, there are a number of rules which a good teacher has to observe. Many readers will of course know these rules but there is no harm in restating them, particularly as this guide is intended not only for teachers.

AROUSING INTEREST

The first thing is to interest the class. Otherwise they will start yawning, listen with only half an ear, let their minds wander and even fall asleep, if they have done a hard day's work.

The need to arouse interest is already important where children are concerned but absolutely essential with adults, simply because the latter come to the Centre of their own free will and if they are bored they will not come back.

But arousing interest is not always easy. It is almost an art or a gift. We all remember some teachers who made even the most difficult subjects attractive and others who could make even the most interesting things tedious. The interest of the class would seem more than anything else to depend upon the interest of the teacher. If the latter is passionately interested in his subject his listeners will become so too: his whole attitude, his gestures and his tone of voice will help to arouse and rivet the attention of his audience.

MAKING THINGS CLEAR

Of course it is not sufficient to interest people in what is being said. Nothing will be remembered if it is not said clearly.

Making the subject clear

In the first place the subject must be simple. It is useless to talk about two things at the same time. If the subject is local geography it is no good trying to say everything in half an hour. The subject must be divided into several sections: physical geography, population, economy, and it must be spread over two or three weeks.

This procedure will help to avoid another danger, i.e. the meandering lecture which seems to go on for ever. The subject must be limited and must be dealt with in a strictly limited period. This is to the advantage of all parties: to the pupils because their powers of concentration are not unduly strained and to the instructor because he will have all the more opportunity of making a thorough study of his subject. This latter point is essential. The teacher must not hesitate to brush up his own knowledge whenever necessary. He cannot lecture clearly if there is the slightest uncertainty in his own mind.

Clear planning

What is said must be based on a clear and flexible plan. Ideas should follow one another logically and without reversions or digressions.

Language and grammatical constructions

Centres are not meant for intellectuals and there is no room for oratorical display. The audience has a limited vocabulary and therefore all high-sounding, difficult words, unnecessary technical terms, rare grammatical forms and long sentences should be rigorously avoided. What has to be said should be said simply because the audience will just not understand anyone who lectures above their heads.

Clear diction

Finally, the lecturer's speech must be clear, slow, carefully pronounced and sufficiently loud. There must be a pause between sentences and another pause when there is a change of subject. This may seem obvious, but how often is it forgotten !

HARD FACTS

Hard facts are easier to understand and remember than abstractions. Instructors should not talk in general terms, but should illustrate everything they say by examples drawn from observation and experience.

Examples

Telling a class that Spartan boys were trained to be courageous will not appeal to their imagination, but telling the story of the boy who stole a fox, hid it on his person and let the fox bite deep into his flesh rather than to admit to the theft shows just how courageous they were and will certainly be remembered.

Observation and experiment

We shall deal later with the technique of observation and experiment. Suffice it to say at this juncture that science can be taught only by observation and experiment.

It is not enough to *explain* what happens when fertilisers are applied to a plot of ground, when a plant is deprived of oxygen, when two accumulators are connected in series or in shunt. This must be *demonstrated*. It is no use describing a characteristic landscape or the costumes of the Middle Ages or Columbus's course. They must be shown by photographs, pictures and maps.

GETTING THE CLASS TO PARTICIPATE

A far-reaching movement started at the end of the 1914 war to replace *passive* by *active* methods in teaching. In the first method, pupils listen in silence to the teacher, then they learn and recite the lesson. The second method consists of a lively exchange between teacher and pupils. Questions are asked to stimulate the inattentive and the dreamers; learning becomes a process of joint discovery based on observation, experiment, visits, etc.

The second method has the greatest chance of success with adults. We must use every possible method to make the pupils play their part and vary those methods to keep everybody keen to know what is coming next just as if they were watching a good film.

PROGRESSIVE LESSONS AND REVISION

If, in addition to observing the points dealt with above, care is taken to proceed gradually from easy to difficult lessons and revise what has been learnt, the standard of teaching should indeed be high.

As an example of proceeding from easy to difficult and simple to complex ideas, a teacher might begin by explaining the movement of the moon round the earth then go on to the solar system as a whole and finish up by studying our own galaxy. Little need be said about revision as experience has shown sufficiently how necessary it is. There should consequently be frequent revision and every opportunity should be seized to recall what has been learnt, for facts are not easy to retain in the memory and soon slip out again.

TEACHING TECHNIQUES

I. TALKING TO THE CLASS

When dealing with children or adolescents, we teachers generally give our lessons in the form of a short talk.

This takes about fifteen minutes or half an hour and is made as clear as possible to enable the pupils to understand and remember the subject matter easily. This type of teaching has several advantages: it is relatively easy for anyone who knows his subject and it is possible to follow a pre-established plan which omits nothing and leads up to a logical conclusion. The advantages are such that the short talk is the most usual method of teaching all the world over and is likely to remain so for a long time to come.

Nevertheless, this method tends to keep the class in a completely passive mood and encourages pupils to let their minds wander to pleasant memories and the promise of sunny days to come. Consequently, when we use this method, we are never sure that our pupils are listening and even less sure that they understand. The fact is that our ideas are only reaching them through the medium of words. But language is often an imprecise instrument. We have only to express our throughts to distort them slightly. There is already a difference between what we mean and what we actually say but between what we say and what the audience understands there is a second difference, particularly when new matter is being introduced.

This imprecision can be gradually dispelled by proceeding by question and answer. The fact that, when a lesson is conducted in the form of a mere monologue, any point that is not understood continues to be incomprehensible, and explains why we are strongly inclined to reduce talks to the minimum.

A talk must always be:

- short: a quarter of an hour, or 20 minutes seems a reasonable length for adult audiences.
- clear: (see previous chapter).
- given for a specific purpose, i.e.
    - to introduce a subject;
    - to summarise a number of factors learnt by other methods.

Although the talk method must never be used alone, it should be given a definite and limited place in the strategy of a good teacher.

II. THE QUESTION METHOD

All teachers know the value of the question method for brightening up their lessons.

By skilful interrogation, the teacher can set up a current of give- and-take between his pupils and himself. The teacher who can make his pupils take an active part has made a great step in the right direction.

That is why skilful questioning is bound to be a part of efficient teaching.

A good question must be:

Precise and clear

Many are either ambiguous or not precise enough. To ask a satisfactory question the best method is to begin by *imagining the desired reply* and then choose a wording most likely to obtain the desired reply.

This little recipe is one of the most effective that I know.

Concrete

When dealing with adult country folk, unused to abstract thinking, it is always an advantage to ask concrete questions relating to people, objects and events they know.

Easily understood by everybody

Precision and concreteness are factors in understanding. There are others, i.e.

- *brevity.* If the question is so long that when you reach the end the pupil has forgotten the beginning, how can he answer?
- *choice of words.* Beware of learned, rare or complicated words unknown to the class. Attention has already been drawn to this point.

Short answers

Steer clear of questions which may take several minutes to answer which make the class lose touch.

Reasoning

Questions to which the answers can be guessed with 50 per cent probability should be avoided. Such is the case with questions which call for such answers as yes or no, right or wrong, or involve a choice between two things.

When asked such a question, an adult may be tempted to guess; if he guesses right it looks as if he has reasoned the answer out but if he is wrong he soon realises and changes his answer.

Classification of questions

Revision questions

These make it possible to run over what has already been learnt and to remember a rule, a factor, a useful explanation. This type of question is generally asked at the beginning of the lesson; it arouses attention and prepares the class to grasp what is to follow.

Questions which break new ground

The teacher does not always have to declare beforehand what he wants the class to learn. Skilful questioning may well set the pupils on the right track. For example, in a lesson on the use of the lever, the teacher can get the class to give him a list of:

1. Tools and instruments based on the same principle (pincers, tongs, steelyards, etc.).
2. The type of lever each represents.

It is, of course, a delicate matter to guide peoples' minds towards new discoveries but when it has been successfully achieved, it is a source of great joy.

Check questions

After a talk, a series of observations, or explanations, it is essential to make sure that nobody is in the dark about any point. A dozen or so questions may well suffice for this and will be much more effective than if the teacher keeps saying "Is that clear ?" which always results in an affirmative reply.

How to ask a question

Finally, a word on what may be called the technique of questioning, on which the effectiveness of the whole procedure depends.

When a particular pupil is questioned and is addressed by name, his attention is certainly aroused and he is forced to think but at the same time all the other pupils know that they are not directly concerned and are not obliged to make any mental effort.

The reverse procedure, that is, to put a general question, is not without its dangers either, as it often brings several replies at the same time which are confusing, incomplete and difficult to check.

The best procedure seems to be the following: the whole class is asked the question, everybody thinks out the answer in his own mind and only then does the teacher call upon one, or, if necessary, two or three pupils to answer.

This calls for a minimum of discipline but it is quite easy to achieve without the class feeling that they are being treated like children. In this way, each member of the class is forced to think and this is the object of all good teaching.

Whatever procedure is used, however, the teacher must not forget to provide a definite answer to his question, or else repeat the answer he receives, with acknowledgments to the pupil who gave it.

III. OBSERVATION

Observations may be made on a landscape, the skeleton of an animal, a machine in operation or at rest, a photograph or pieces of ancient pottery. Here, the field is very vast. Irrespective of the object studied, the observation process may generally be divided into three main stages:

1. *Analysis of the object*

The different parts of the object are distinguished, the teacher asking the pupils to state the names of the parts he assumes to be known (questions to break new ground) and giving the answers himself in the case of the other parts.

For example, when dealing with a picture, the background, foreground and middle-ground can be distinguished and when examining the engine of a motor car, attention can be drawn to the carburettor, the coil and the dynamo.

2. *Analysis of the various parts* (and, where appropriate, the way they work)

In the second stage each of the parts should be discribed as completely as possible. Whenever necessary, the shape (measurements), weight, colour, position, etc. should be noted.

Then each of the parts, previously described as a whole, will in its turn be analysed and sub-divided. For example, in the case of a flower the first stage will consist in distinguishing the sepals, petals, stamen and the pistil; the second stage will deal with the pollen, ovary and style...

This twofold task can be greatly facilitated if each of the parts of the object can be detached (parts of an accumulator, which are taken out one after the other and laid on the table) and then taken to pieces or opened (to understand how a carburettor works the cover has to be removed and the jet taken out. Similarly the pistil of a flower can be slit open with a razor blade to show the seed).

3. *Reasoning*

The detailed, precise description of each separate part naturally leads to a discussion about its function (e.g. the carburettor jet, the carburettor float or the stamen and pistil ? Why has a plough-share the form which is familiar to us ? How can the different exposure of two slopes of a hill lead to two different types of rainfall and explain the two types of vegetation visible in a photo ?)

IV. EXPERIMENTS

Importance

Experiments are observations carried on some phenomenon caused or controlled by man. It is well known that experiments are most important in chemistry, optics, electricity, etc., but it should also be borne in mind that they tend to play an increasingly significant part in medicine, biology, psychology and all the applied sciences.

Their use in teaching will therefore prepare the adults to understand the civilisation in which they live. But more especially, it will help them to acquire the strictly objective outlook which is characteristic of scientific method and which it is worthwhile trying to substitute for any pre-logical tendencies which may still exist in the mentality of an under-educated adult.

The teaching of scientific method begins the day the teacher puts a magnetic needle on a cork floating in water and points out that the needle points always in the same direction or when he teaches the laws of optics by using an ordinary mirror and a candle.

For this purpose there is no need of a laboratory and expensive equipment. I remember a primary school teacher tucked away in a little Greek mountain village, who proudly showed me a model of the solar system manufactured with a few pieces of wood, some tin cans and some wire. As he turned a handle, the planets moved round the sun which was a 1.5 volt electric bulb. The moon was moved by a spring taken from a toy and even eclipses were shown. That teacher had no need of any advice from us; in fact he could have given us some.

The rediscovery method in experimental sciences

There are two main ways in which an experiment can be useful: *to check* results previously obtained or *to rediscover* results which are unknown when the experiment begins. In the first case the teacher says, for example: I am going to show you that any image of an object an infinite distance away is formed at a fixed point. In the second case the existence of a focus is demonstrated by a series of measurements.

Conditions under which experiments should be carried out

The rules for carrying out successful observations and experiments are a matter of simple common sense.

Preparation

Experiments must, of course, be carefully prepared, i.e. the equipment and necessary materials must be assembled and the experiment done first in private to ensure that it will run smoothly. But the accompanying comments must also be prepared by studying the documents, exhibits and various points to be emphasized, while the questions to be asked must be thought out beforehand.

Procedure

Everybody must be able to see clearly. It is therefore useless brandishing a photograph 10" × 12" in size in front of about 50 adults in a dimly lit room. Documents of this kind must be passed from hand to hand accompanied by a slip of paper discribing them.

Nor is it possible for about 30 people to follow the dissection of a frog. If necessary the class should be divided into groups and the experiment repeated in front of each group.

Adults must not be allowed to remain passive while the teacher battles with his documents, test-tubes and bottles, which is quite likely to happen. Questions should be asked, drawings and measurements made. In a word, minds must be stimulated.

V. VISITS

A visit is an on-the-spot-study of objects which cannot be moved i.e. machinery, constructional work, etc.

Adults enjoy visits because they are rare, resemble excursions and take them away from their familiar surroundings. It is therefore advisable to arrange for several visits as part of the Centre's programme.

To study a small fishing port or an irrigation system succesfully is more difficult than to observe a model or some simple object in class. The teacher will therefore have to prepare his visit with great care and run it with the absolute minimum of discipline.

Preparation

a) *The teaching aspect:* If the proposed visit is to be as beneficial as possible it should be prepared for at the Centre by a number of lessons or experiments. For example, to understand how a power station works, it is first necessary to know about electricity and if possible understand the principles on which generators operate. Sometimes, however, it is preferable to keep the subject absolutely fresh and let the class discover it when they arrive on the actual spot.

b) *Material arrangements :* these can make or mar the visit and must not be neglected. It is therefore necessary :

— to obtain any necessary permits
— to fix a definite day and time
— find out if a guide is available
— see the latter beforehand and make it clear what he is required to do.

Discipline

The number of pupils should be limited and they should stay together in one group. The guide should not talk too much otherwise he will not give the group time to observe what he is saying. If necessary he should be asked questions.

There should be determined efforts to keep everybody mentally alert and prevent minds wandering. This point has already been made in dealing with observations and experiments and the same procedure should be used.

Recapitulation

On returning to the Centre, it is often worthwhile devoting an hour or two to a revision or summary of what has been said during the visit. A sketch on the blackboard or a short talk will clear up any abstruse points. Finally the lesson or lessons can be concluded by a group discussion.

VI. THE DISCUSSION GROUP

All that is required to prove Pythagoras' Theorum is a single demonstration, as its truth is so self-evident (within the limits of Euclidian geometry, of course). But this is not at all the case when the teacher deals with the pruning of trees or the need to keep disease at bay by individual hygiene or the advantages of forming a co-operative society.

The most brilliant lecture and the most successful experiment will fail to convince an audience, if they have been unable to dispel old fashioned ideas, ingrained habits, and the almost universal resistance to something new.

"They didn't do it that way in my young days", is an argument which is often heard and the agricultural adviser or the welfare worker in her white overall often seem too distant or too theoretical to elicit much more than polite approval.

It is therefore essential in successful adult education that in addition to talks, questions and experiments we should also use an entirely new technique, i.e. group discussion.

As its name indicates, it consists in getting a number of people together to discuss a particular problem. It has many advantages :

1. First and foremost, it prevents adult education from looking like school.
2. As everybody has a turn to speak, the teacher can detect points which have not been understood and clear them up at once.
3. Furthermore, the teacher has only to listen to the villagers to see who is favourable to his suggestions and who is not. It will be all the easier for him to raise the matter again and dispose of the objections either in the course of the discussion or better still by dropping in to see the objectors in their homes.
4. The discussion group also enables the experience of each of its members to be put to good use. The fact is that though illiterate or semi-literate, its members are not children and life has taught them many things which may be of benefit to their neighbours.

Nevertheless, the discussion group has its dangers and generally speaking it is much more dificult to control than a mere lesson. A closer look at these dangers will make it possible to avoid them.

The first danger which awaits any first attempt is of course incoherence, not only in the conduct of the discussion but also in the way ideas are expressed.

In the discussion, the members of the group are sometimes apt to talk all at once, interrupt each other, more or less vehemently or split up into small groups. It may follow that one member may constantly interrupt, or talk too long and tend to silence his other colleagues thereby causing them to relapse into passivity, which reintroduces the original problem.

The subject may be lost sight of altogether. For example, a discussion on whether the inhabitants of a commune should take part in a constructional work of public interest may very well degenerate into an attack on the authorities and become a political debate. Or again, some speakers, although not forgetting the subject, will tend to digress and talk about what interests them personally.

Even by respecting the limits of the subject, it is often difficult to keep the discussion from switching backwards and forwards instead of proceeding according to a logical plan. For example a teacher may think he has settled a particular point but some members of the group will go back to it, take up arguments which have already been ventilated several times and question a conclusion which a few minutes earlier seemed to have been generally accepted.

Cases of mutual misunderstanding will be extremely frequent and it will soon be quite clear that people using the same mother tongue can talk a different language.

There is a final difficulty which is sufficiently familiar to all those who have been to seminars or congresses, namely. the difficulty of closing the discussion.

Nor is excessive eagerness on the part of the members of the discussion group the only attitude to be dealt with. There is also the state of mind which borders on indifference. Try as he may to encourage them by book and word, the teacher will often find himself facing a group of adults with their eyes fixed on the ground like schoolboys who have not learnt their lessons. This is a danger signal. Two or three experiences of this kind and the teacher will next be facing a row of empty chairs.

Has everything now been said on this subject ? Far from it. But rather than enumerate all the difficulties which dog the teacher's path when he has a discussion to organise it might be better to consider ways and means of meeting them, that is to say to try to list a few rules which are likely to make discussion definitely effective.

1. *The discussion group must be limited in numbers*

It is absolutely impossible to conduct a discussion successfully between 100 or even 50 people. The best that can be hoped for in such a case is that only a few members of the audience will take part while the rest are thinking of other things, and this is hardly a satisfactory result. What generally happens, however, is that the teacher simply loses his control over the group, cannot make himself heard and swears that he will never make that mistake again.

In both cases, the discussion meeting has been a failure. Consequently the teacher should refuse to form a discussion group of more than 15 to 20 people. If the audience is bigger it should be divided into groups, each holding its discussion either separately or simultaneously.

2. *Choice of subject*

A good deal of careful thought should be given to this and a good deal of common sense. The subject must be *simple* because it is not easy to get peasants who have only finished their elementary schooling to discuss all the modern conceptions of the universe.

The subject must be *interesting*, i.e. it must have a bearing on matters of interest to the community.

3. *Introduction of the subject*

The teacher must either himself introduce the subject for discussion or get some specialist or some qualified villager to do so.

Whoever introduces a subject should do so in ten to twenty minutes, by

- analysing the subject : factors involved
  - a few useful figures
  - examples
  - documents which can be consulted
  - etc...
- indicating the main lines of a possible debate :
  - arguments for and against
  - advantages, disadvantages
  - importance, difficulties.
- guiding the group towards the conclusion he wishes or leaving the discussion absolutely free to follow its own course.

4. *Guiding the discussion*

This is an essential responsibility which should be assigned to a chairman elected by the group or chosen by the teacher. A competent chairman is a guarantee of a successful debate.

The chairman should :

a) open the meeting, introduce the lecturer in a few words and announce the subject.

b) ensure that each speaker is as free to express himself as possible, provided that a minimum of debating discipline is observed.

Consequently,

— he should make sure that everyone has a turn to speak but only after requesting and obtaining permission. This is a habit which has to be learned and on this point one must be very firm right from the outset, (taking care, of course, not to hurt anybody's feelings). The chairman must not hesitate to ask anyone speaking out of turn to be good enough to wait until his turn comes. Similarly, any private discussion between two or several people must be ruled out of order.

— speakers must be prevented from talking too often or at excessive length and on the latter point every speaker should be told at the beginning that he has only a few minutes.

c) Make the subject of the discussion clear :

— by fixing a plan if necessary which must be adhered to : for example, "if you agree we will start by talking about... and then we shall go on to... and end up by...".

— by tactfully helping those who have difficulty expressing themselves;

— by asking a rather muddled speaker to clarify his ideas or by doing it for him ;

— by summarising the main points in a somewhat lengthy contribution;

— by drawing one or two conclusions.

d) Steer the discussion along the lines of some logical plan and tell the speaker when :

— he is digressing (i.e. bring him back to the point);

— when he is labouring a point already discussed;

— when his remarks would be more effective if made at a later stage.

e) Liven up the discussion i.e. :

— encourage the shy ones. The chairman should not hesitate to ask those who have not spoken whether they could not give the others the benefit of their experience on a particular point. It should then be shown that their remarks are appreciated.

— give fresh impetus to a flagging discussion before the subject is completely exhausted by recapitulating the pros and cons and, if necessary, in a paradoxical form in order to provoke a reaction.

— introduce new facts and recall any which the presentator may have introduced.

— ask the group questions.

f) The conclusions drawn should be as precise as possible, and, where necessary, procedure should bc decided for the proposed scheme.

If these few rules are respected, discussion can become one of the most useful methods of adult education.

Talks, observations, visits and discussions are all merely means to the same end, which is to learn, and it would be pointless to suggest which would give the best results. Each has its own advantages and drawbacks, depending on the subject to be discussed.

In any case, it must be realised that a lesson merely consisting of a talk is not enough either to impart information, stimulate a desire for knowledge or even to retain the attention of an adult.

All workmanlike meetings at the Centre *combine all the features of the different means*, the proportion used of each depending on what is being taught.

LAUNCHING THE PROGRAMME

The subjects suitable for a programme of general and technical education have now been listed. It now remains to teach them and this can be done in several ways.

I. THE RIGID METHOD

Those responsible for adult education at its various levels will no doubt be tempted to draw on the experience they have acquired in teaching children; they will tend to split their subject into seven or eight parts corresponding to the seven or eight months during which the Centres are open. Each of these parts will then be divided into as many lessons as there are teaching hours, the number of hours having been decided round the conference table.

This method has proved its worth and has many advantages. It enables the country's educational authorities to ascertain at the end of the year whether there is likely to be any big gap in their children's knowledge and whether they can set their examination papers without any fear that they may be framing questions the pupils cannot cope with.

The teachers themselves are helped greatly by knowing exactly what they have to do and when. In any event, there must be a definite syllabus otherwise it is impossible to compile text books.

It is indeed hard to see what other scheme could be put into force without absolute chaos.

The above remarks apply, however, to education at *school,* i.e. compulsory education intended for children who are in a position of absolute dependence.

It is quite a different matter with adults, particularly if attendance at the Centre is optional. In this case, the only way of attracting pupils is to arouse their interest in the subjects taught.

The announcement that tomorrow at 6 p.m. we shall deal with heredity and the day after at 5 p.m. the lesson will be about fractions or the future tense is not likely to result in a wild rush to the Centre. It might be worth considering why. The two more obvious reasons are that the subject sounds dull and the way of announcing it is even duller. There is however, another reason which is more important, namely the subject may not seem to have a direct bearing on the immediate interests of the villagers and their everyday life.

Consider a village where running water and electricity are due to be laid on. This fact is nothing short of a minor revolution. For the villagers it marks the end of one civilisation and the beginning of another. It arouses their curiosity and is the subject of gossip at the well or round the oil lamp in the evening, particularly as both the well and the oil lamp are soon to disappear. The installation of running water will save labour and open up the prospect of new types of crops while electrification will give access to types of recreation hitherto unknown (radio). The word recreation is really inadequate, for the radio is much more than that. It marks the end of a terrible isolation and the beginning of a permanent link with the rest of the community, with new ideas and new emotions. It would therefore hardly be the moment to talk about the discovery of the anti-rabies inoculaiton or sport in the olden days. A new interest has been created and must be exploited. The teacher should therefore deal with the practical aspects of electrification, the dangers of faulty connections and first-aid in cases of accident. There should be a theoretical lesson on the use of power, i.e. heating and lighting (fuses, etc.). The teacher should tell the wonderful story of Edison inventing the first electric bulb and explain accumulators, batteries, voltmeters and how they are used.

Generally speaking, it is often possible to find for a lesson a point of departure in some interest which is common to enough if not most of the population. If an epidemic breaks out and becomes the subject of anxious discussion, then is the time to explain what a vaccine or serum are. When a new crop is introduced by the agricultural services the time is ripe for a lesson on plants, how they derive their nourishment and how they reproduce themselves.

This well-known type of teaching is called the "points of interest method".

II. FLEXIBLE METHODS: "POINTS OF INTEREST"

This method is not actually a teaching technique but merely a device for grouping all the subjects taught round one single centre.

If, for example, the main subject is the craft industries, all reading matter, explanations and dictations will be devoted to descriptions of the life of a potter, a weaver or a wood, copper or silver engraver. Science lessons will deal with the raw materials used: properties of metals, their production and treatment, or the cultivation of industrial crops. A comparison will be drawn between the way raw materials are used in the craft trades and in large scale industry. History lessons will be devoted to a study of craftsmen in various periods, explaining the changes wrought by the industrial revolution. Geography lessons will show the stage the crafts have reached at the present time in various countries of the world. Arithmetic lessons will consist of problems centreing round the buying and selling prices of the goods produced (introducing areas, e.g. carpets, or weight, e.g. copper saucepans etc. ; the possibilities are limitless). Quite naturally these lessons will lead on to the question of profit margins, monthly and annual earnings of workers, etc.

Finally, there are a number of subjects difficult to place in a school syllabus but easy to teach to adults, for example, the place of the small craftsman in the modern world (is he doomed ?), the marketing of goods (need for reliable quality and professional honesty), the work of the craftsman as compared with that of the factory worker (discussion). Apprenticeship (significance, syllabus, rights and responsibilities of the employer, the worker and the apprentice.)

It is not necessary to enlarge on the wealth of potential material inherent in this process which is well known. The books of Decroly and his collaborators contain a multitude of examples of the use of "interest points" in teaching schoolchildren. The obvious advantage of this type of teaching is that it maintains interest and avoids that artificial separation between subjects on the same syllabus which, in conventional teaching, switches children from geography to fractions,

fractions to modern literature, modern literature to antiquity and antiquity to the iron and steel industry, and so on, every time the bell rings for the interval.

With the "interest points" method every subject dovetails into the other : history (as in the example cited above) is enriched by the modern literature or technology lessons and what finally emerges is an overall understanding of the subject which becomes alive and exciting.

The use of the "interest points" method has, however, a number of difficulties and limitations. In the first place the preparation of such lessons demands a considerable effort on the part of the teacher. The use of a textbook is out of the question and although lesson 12 of the geography book dealing with the polar regions is perfectly suitable for a study of life among the Eskimos, the following lesson may have nothing whatsoever to do with the subject. Similarly, the teacher will have a considerable job hunting up appropriate reading matter, which is scattered over a number of books. All the problems he sets his class will have to be thought out by himself. It may be argued this is all good for the teacher as indeed it is since it prevents him getting into a rut and that this is precisely how lessons should be prepared.

In practice, however, the teacher often has difficulty in coping with so much work, even in the most favourable cases, when he has only a limited number of pupils, all at the same level.

The real obstacle of basing adult education on interest points is the very great difficulty of making syllabuses coherent. Although certain subjects like history, geography and science can be learned, if need be, in separate instalments (in history for example, it is not absolutely necessary to work in chronological order), this is absolutely impossible in arithmetic and geometry and very difficult in grammar, as each new step is based on what has gone before.

Teaching on the interest point system therefore implies finding an artificial connection between the addition of fractions or the formation and use of the future tense and subjects such as the study of costume, the Asian world and the reindeer age, which are obviously quite different.

But this objection is only valid for a class of children which the teacher has to take from stage A at the beginning of the year to stage B at the end of the year, both stages being laid down in the school syllabus.

With adults there is much less pressure on the teacher. He does not have to cover the whole of botany or elementary electricity or even arithmetic. His job is to impart the theorteical knowledge normally required to enable his pupils to understand certain practical problems which affect the community.

These problems are nothing more than interest points around which a skilful teacher will group most of his teaching and in so doing will make it acceptable and even desirable.

The interest point is therefore one of the best ways of teaching adults. If it is flexibly and sensibly used it will save his lessons from being completely theoretical and give them a living significance.

The only virtue which is claimed for the interest points set out below is that they have been actually used in practice and are examples of what has just been said. It should be remembered that they have not been compiled for demonstration purposes but merely as material which can be adapted by the teachers to whom they are submitted in order to make good some of their inevitable deficiencies.

AGRICULTURAL INTEREST POINTS

IMPROVEMENTS IN CATTLE BREEDING

THE BASIC PROBLEM

In the Epirus region, the Greek Government, with the assistance of international organisations, has organised an experimental economic development area designed to raise living standards and modernise the economy of the region.

The Government has attached particular importance to one of the points in the programme i.e. the introduction of better breeds of cattle to replace the local types which yielded less milk and meat. With this in view, a model breeding centre and artificial insemination stations were set up and a team of agricultural advisers went all over the country to win over the farmers and help them with the work entailed in the reforms envisaged.

To reinforce this drive, it was decided that 27 adult educational Centres in Epirus should adopt cattle breeding as an interest point and make use of a special brochure jointly compiled by an agricultural engineer and a school teacher. A circular was sent around to teachers on the importance, potentialities and use of this brochure.

The first part of the circular showed how to introduce adults to the brochure, explaining difficult words and making use of it as potential matter for reading exercises.

The second part, from which extracts are given below, dealt with the use of the brochure as an interest point.

THE BROCHURE AS AN INTEREST POINT

Points dealt with in the Brochure	*Contents*	*Type of lesson involved*
Need to use fertilisers (page 6 & 7).	Types of soil. Fertilisers, soil improvement, fallow land crop rotation. Plant nutrition : roots, sap,	Geography and technology

	etc. This should be supplemented by a study of the different types of roots from plants brought in by the pupils.	
Origin of improved breeds of cattle (page 8, 12). (Swiss, Dutch and Jersey breeds).	Study the geography of those countries, starting from their breeding methods and going on to their climate, topography (which determine breeding conditions) economy (in which breeding is an important factor), population, etc.	Geography
The Bull Apis (page 14).	This name, which is merely mentioned in the brochure offers an excellent opportunity for a rapid glance at Egyptian civilisation (begin by the worship of the Bull Apis and going on to religion in general, the organisation of society, the Pharaoh, ancient Egyptian monuments, hieroglyphics, etc.).	History
Need for artificial insemination (page 15).	Reproduction among the higher animals.	Biology
Importance of artificial insemination to keep breeds pure (page 15).	The theory of heredity. It is quite sufficient to use a blackboard to illustrate the principle of Mendel's laws by showing what happens when black and white hens are interbred. This should be compared with the transmission of hereditary characteristics among human beings.	Biology
Cattle must be given regular opportunities for drinking and their water must be clean (p. 22).	Study the role of water in sustaining livestock. The question of water-supply and how it affects human communities. Ways in which water is obtained all over the world.	Science Human geography
Compostion of water (page 22).	As the terms oxygen and hydrogen are used a lesson can be given on the composition of water and a very simple experiment can be carried out to demonstrate by direct current.	Chemistry

Need to clean the udders of cows. A common disease: "Cowpox" (page 26).

The photos on page 26 seem to have been specially taken to prompt teachers to talk about Jenner's discovery.

Struck by the fact that women whose cattle were affected by cowpox never caught smallpox, Jenner had the idea of inoculating human beings with pus from the sores of the affected cows and observed that the people so innoculated also became immune. This was the beginning of artificial immunisation. Who could fail to be interested by such a story ? Once interest is aroused, the teacher can go further. He can deal in simple language with other types of vaccines, the body's defence mechanisms, the part played by the white globules etc. Here is material for three or four interesting lessons.

History of medicine

VISITS, TALKS, ETC.

If a farmer in the area happens, for example, to be breeding Swiss cows or cross-breeds, he should be invited to the Centre. What he has to say will be well worth hearing. He should be encouraged to enter into discussion with his audience and answer their questions. Better still, he should be asked to allow the adults at the Centre to visit his farm and give them a little talk on the spot.

HEALTH INTEREST POINT : HOW DISEASE SPREADS

I. THE FILM AS AN INTEREST POINT

There is another example of interest points. This time it is taken from abroad, but could easily be applied in Greece, particularly as Walt Disney's film "How disease travels" exists in a Greek version, which could be borrowed free of charge from the American Information Service (U.S.I.S.).

The purpose of this interest point was to prepare the population of a specific area for an intensive hygiene drive.

II. PROCEDURE

1. Projection of Walt Disney's film "How disease travels" which had been dubbed in the language of the country.
2. Development of the different points in the film.

Subject of each sequence or groups of sequences of the film	*Subject*	*Type of lesson*
a) Microbes.	What a microbe is. Story of the discovery of microbes by Pasteur.	Science
	General consequences (revolution in medicine and surgery).	History of science
b) The propagation of microbes in water.	The sequence shows a man drinking water polluted by the excrement of a diseased person. Plan of this sequence should be put on the blackboard and enlarged on.	Science
c) Propagation of microbes by flies.	The film sequence showed flies alighting on the excrement of a diseased person, and subsequently on food which was immediately contaminated (the plan of the sequence should be put on the blackboard or, better still, a felt board; only three subjects need be pinned up: excrement, flies, food).	
	A lesson should now be given on this subject, based on the two plans.	Science
	Lesson on flies (based on the fact that they transport microbes. The process should be explained by studying the body of the fly under a magnifying glass). Emphasis should be laid on the danger of flies owing to their rapid multiplication, which should be studied.	Science
	The scenario of the two previous sequences should be given as a subject for composition. The class should be asked to draw a fly, en-	Language study

	larging one of its legs, and one or two adults able to do so should be asked to reproduce the two plans of the sequence. The best compositions and drawings should be pinned up on a small notice board. A few titles and sub-titles should be thought up.	Drawing and handwork
d) Campaign for latrine building to avoid the pollution of water.	The sequence of the film should be recalled. The teacher or the pupils should make a drawing on the blackboard or model of the *latrines* proposed. Discussion on the use of such latrines (or any improved type) in the village. Volunteers might be asked to build model latrines at the Centre or in private houses. Once interest has been aroused there can be a lesson on the general question of drinking water (although this is not mentioned in the film) i.e. the underground water table, how it is formed; harnessing a spring; sinking a well. The supply of water to modern cities: catchment area, transport, purification, and piping to houses. The role of the town council. A simple way of purifying doubtful water: boiling.	Manual work Science Technology Civics Hygiene
e) Campaign against flies.	The author of the film merely recommends that food should be protected by tin dish covers. The effectiveness of this should be emphasized, but others can be proposed: larders, fly traps, spraying with insecticide, use of fly swats. Give a detailed plan of a larder. If the Centre possesses a few carpenter's tools, volunteers might be asked to construct a larder.	Science Manual work
f) Air-borne propagation	The film sequence should be recalled i.e. a shopkeeper suffering	

(tuberculosis microbe).	from the disease has a fit of coughing: his customer may contract tuberculosis and pass it on to the whole family.	
	A short piece of dictation recounting this sequence can be prepared by the teacher.	Language study
	Lesson on the history of the discovery of the Koch baccillus.	History of science
	Prevention and control of tuberculosis in modern countries. The role of the State: organisation of sanitation services.	Hygiene Civics
	The part played by radioscopy and mass X-ray in the control of tuberculosis. Advantages. Principle of Radioscopy.	
	Its discovery. General use in medicine.	Science
	Dangers of radiation, the great radiologist, their deaths.	
	Devotion to science.	Ethics
How the individual can help in the tuberculosis campaign.	"Do not spit on the ground". "Use your handkerchief". Use these two examples for a lesson on collective ethics.	Collective ethics
g) Infection by contact.	Recall the sequence of the film in the form of an elocution exercise for one or more volunteers (a child has sores on his body, his playmate touches the sores and catches the illness). Remind the class of the two methods of prevention: the sick child is isolated and nursed by his mother who washes her hands with soap and water after every contact.	Language study Hygiene

PART II

AUDIO-VISUAL AIDS

AUDIO-VISUAL AIDS

I. Description

This term covers all the media used for the information, education or recreation of an audience, large or small.

Books are a border-line case, but they are so important to our civilisation and educational system that it is better to deal with them separately as we did when considering the campaign against illiteracy. For practical reasons, however, it may be worth making a distinction between simple aids such as objects, models, photographs, drawings, blackboards, exhibit boards, felt boards, posters and film strips and the more complex aids such as sound film strips and animated cartoons, radios, pick-ups, tape recorders and television.

The first category are cheap and may be made and used by the teacher even if his resources are limited but the use of the second category presupposes some central production service and comparatively expensive equipment.

II. Advantages

Both offer considerable advantages to which much attention has been devoted.

1. They eliminate language barriers as they usually have a universal appeal.
2. They reach a wide audience, i.e. from two or three hundred at a cinema show in a medium-sized hall to millions in the case of a radio broadcast.
3. Visual aids make teaching concrete and amplify words by pictures. It may therefore be said that they :
   - focus attention,
   - make memorisation easier,
   - carry conviction.

   Most of them even operate by suggestion (like the cinema, partly owing to the surrounding darkness) and positively command attention for what they have to impart. This is an enormous advantage, although it is not without its dangers.
4. They bring the whole world to the Centre. They make it possible to show every aspect of existence : underwater life,

a heart operation, cells and microbes, sun-spots, the most remote tribes, former civilisations. A film strip or cartoon can transplant the audience to a warship or a factory or the last Olympic games or the heart of the desert. What more reliable method could be imagined for creating interest and ensuring constant attendance ?

III. THEIR LIMITATIONS

Extraordinary though they are as an instrument of information and mass education, audio-visual media are only *aids* and should remain so. They cannot replace direct action by the teacher nor can they supercede books.

It would be unrealistic to imagine that a few film shows in a hundred villages could *by themselves* change the method of growing a particular cereal crop or transform unhygienic habits or outdated working techniques. But it is just as great a mistake to degrade the cinema and the radio to the status of pure entertainment and believe that the only way to acquire education is to rely exclusively on what the teacher says.

IV. ROLE OF AUDIO-VISUAL AIDS

According to the purpose for which they are used, audio-visual aids can provide :

Information : Here facts, documents and events are presented but no effort is made to educate in the strict sense of the word.

Motivation : "Motivation" aids are intended to encourage or recommend a particular type of behaviour without specifying the procedure. They make it easier to accept new ideas and change certain attitudes.

Education: The purpose of the educational audio-visual media is to give theoretical and practical tuition.

In actual fact, one and the same film strip may serve two or even three of these purposes but this is not advisable. It is generally preferable not to mix the various categories particularly as each medium is designed for one specific purpose, as we shall see when studying them in detail.

REAL OBJECTS

Whenever possible the teacher should exhibit the actual objects connected with what he is teaching. Object lessons should be held either at the Centre or during outside visits.

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1. Visual aids in fundamental education and community development — Reports and Papers on Mass Communication, No. 27 — UNESCO.

THINGS TO OBSERVE

There would never be enough room for a full list of the objects which can be used with adult classes but here a few suggestions may be helpful :

Natural Science : living animals. Parts of the skeleton : skulls and limbs of small rodents.
Animal : small animals in boxes or jars. collection of insects, butterflies, etc.
Plants : All plants, which can be picked in their season or taken from a herbarium.
Minerals : different types of rock etc.
Technology :
Instruments and machinery : Fascinating object lessons can be provided by a tractor, a locomotive, a weaving loom etc.
Electricity : batteries, accumulators, wiring etc. should be carefully studied and if necessary dismantled.
History : A collection of ancient objects, such as coins, potery, pieces of costume, can add concrete interest to a lesson.
Geography : Exotic plants and seeds (in Europe for example : green coffee, cacao-pod, tea leaves, cotton seed, ground nuts, cocoanuts, palm nuts etc.).
Ore and unrefined products, i.e. crude oil, iron, copper, tin, aluminium ore, coal and peat.

It is not, of course, possible to obtain everything listed above in the course of a single year but with patience and the help of the International School Correspondence Service or private firms it is possible to build up a collection, the educative value of which will not depend so much on its variety as the interest it can arouse.

MODELS AND MOCK-UPS

It is sometimes necessary to replace an actual object by a model which has either been bought or constructed on the spot. In the latter case, there is no limit to the teacher's ingenuity and patience. Although however, initiative is undoubtedly one of the prime qualities of anyone who takes over the responsibility of adult education it is obvious that no teacher can be expected to give up 10 hours of his time to preparing a model for every lesson. This is an additional reason for exercising great care in the choice of those he does make.

Here are some examples of what can be made :

Geography :	Maps in relief, cross sections of soil, models of houses, tools, peep-shows.
History :	models of cities, dwellings, castles.
Mathematics :	models of surfaces : squares, rectangles, triangles etc. volumes : pyramids, cones, cylinders, etc.
Technology :	models of furniture, desks, tables, benches, wooden or iron structures, electrical systems, bricks or stone walls, wooden structures, wells, latrines, rubbish pits.
Dressmaking :	different types of stitch in sewing or knitting, buttonholes, stages in making an overall or a blouse.

STORING OBJECTS, MODELS AND COLLECTIONS

These should be kept in a cupboard or even a special room, which can be turned into the Centre museum, and brought out for exhibitions.

Every effort should be made to interest the adults in this museum and induce the habit of adding to it. If necessary, "donations" can have a label attached giving the name of the donor.

WAYS OF MAKING MODELS

Here are a few simple processes for making models.

1. *Clay models* (fig. 7)

Clay ready for use can be obtained from potteries or picked up in the countryside (on embankment slopes etc.) When dried the objects may be painted but are not very durable. However, we managed to keep a few for several years.

Naturally, if there is a pottery near at hand the models can be baked (but they must be made of potters' clay or else they will split in the oven).

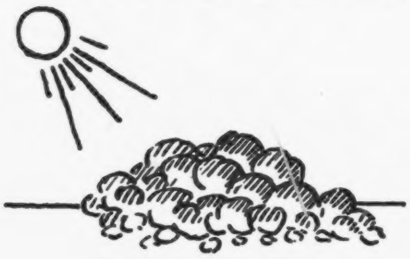
If cracks form in the model, although it has been carefully dried in some shady place out of the wind, the clay should be mixed with a little sand or ground fragments of pots already baked. The cracks will disappear.

Clay which is not being used can be preserved in a shady place if it is wrapped up in damp rags.

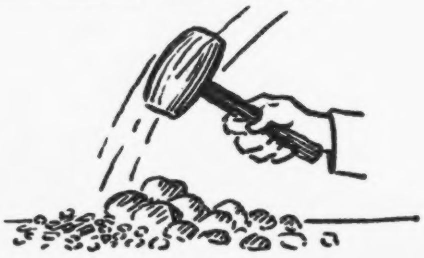
2. *Plasticine :*

In place of ordinary clay, plain or coloured plasticine can be used.

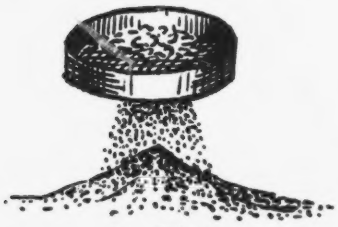
A FEW SIMPLE HINTS FOR MAKING MODELS ETC.



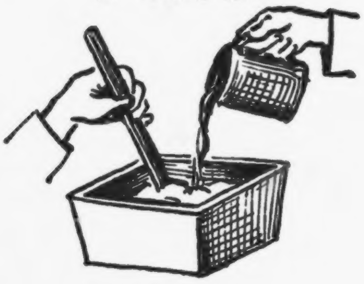
1. Dry the clay.



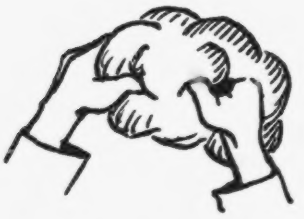
2. Grind it.



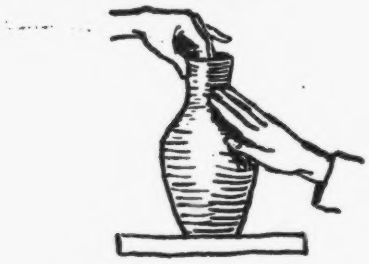
3. Sift it.



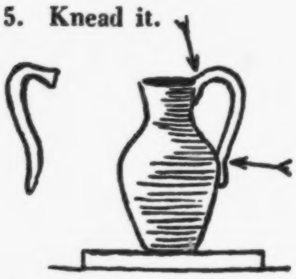
4. Add water.



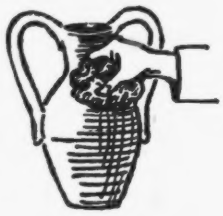
5. Knead it.



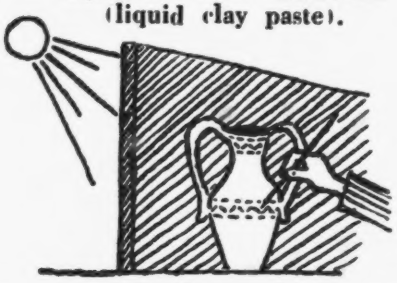
6. Make the model.



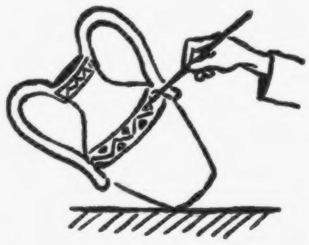
7. Stick the components together with barbotine (liquid clay paste).



8. Smooth down if necessary with a wet sponge.



9. Dry the model in a shady place. If required, do any engravings as soon as the model has begun to set.



10. When the model is completely dry (several days after) coat it with oil paint.

Figure 7. *Clay*

3. *Plaster (fig. 8)*

The advantage of plaster is that it is quite strong once it is dry especially if it has been reinforced with small pieces of wood or wire.

To mix the plaster, it should be shaken into water in small quantities and stirred. (Never add the water to the plaster).

To make the plaster easy to work it must be prevented from setting too rapidly by mixing it for example with white size which can be obtained from any chandler (200 gms. of the size to 1.000 gms. of plaster, although the proportion can be altered if necessary).

All instruments and receptacles should be cleaned and washed before the plaster hardens.

4. "*Papier Mâché*" :

Lastly, paper also may be used, according to the two following methods described in Figures 9 and 10.

PHOTOGRAPH ILLUSTRATIONS

I. Value (Figure 11)

Photograph illustrations have an air of such authenticity that they are readily accepted everywhere as a reflector of real life.

Their limitations arise from their fixity and the fact that they are to some extent complex, so that semi-literate adults may sometimes find them difficult to understand without some explanation.

But they are an extremely useful aid which costs practically nothing and every Centre should possess a growing collection.

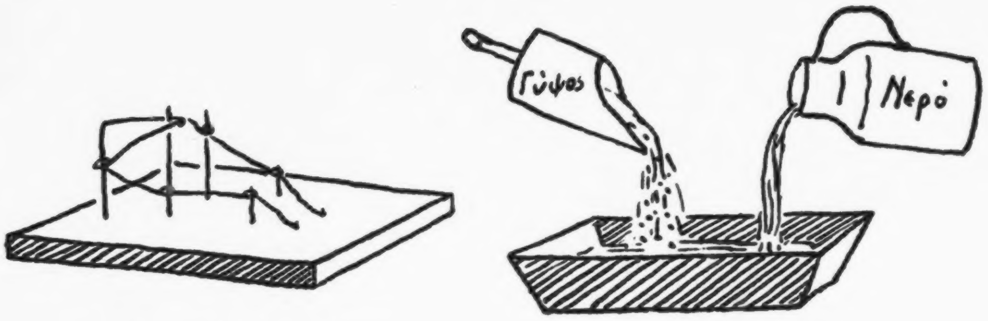
II. Sources

a) Photographs cut out of.
- national and foreign newspapers and magazines
- tourist or publicity literature
- documentation supplied free of charge by embassies, government departments (railways, electricity authorities, etc.) or private firms (airlines, shipping lines, industrial works, etc.)

b) Postcards bought or exchanged.

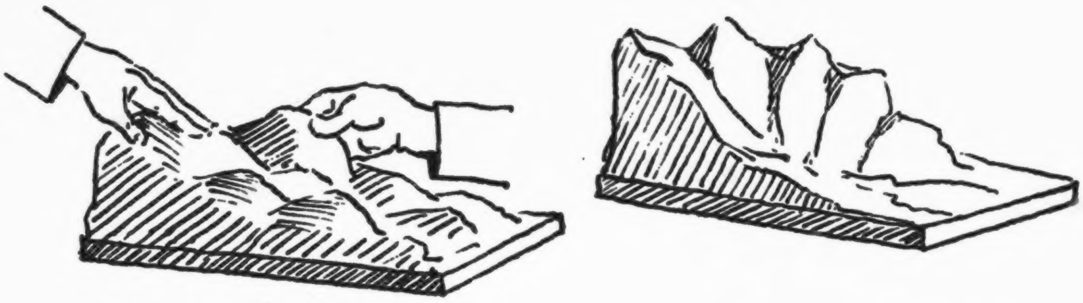
III. Filing

Photos should be stuck separately on strong, slightly tinted paper or cardboard, leaving a margin, and classified by subject.



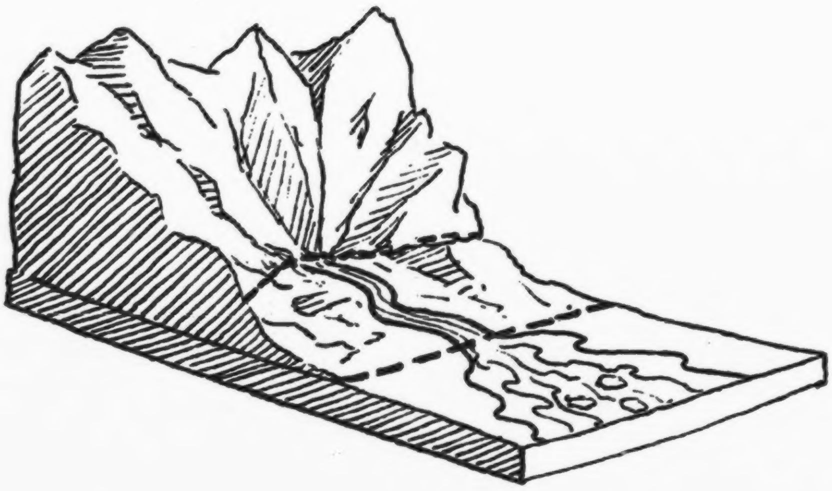
1. Prepare the framework.

2. Add water.



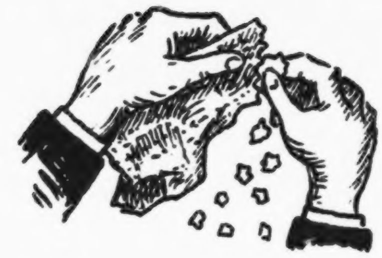
3. Make the model.

4. Dry the model.

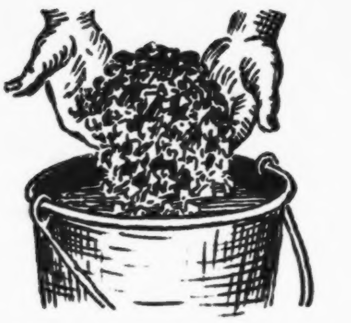


5. Paint the model (gum or oil paint, but be careful, because plaster is porous).

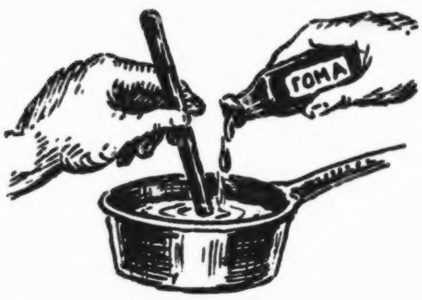
Figure 8. *Plaster*



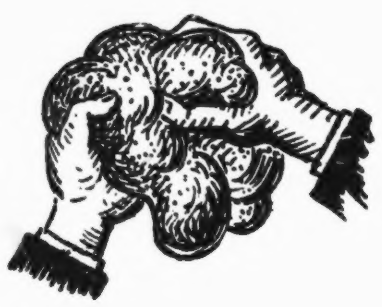
1. Tear up a newspaper into small pieces not larger than a finger-nail.



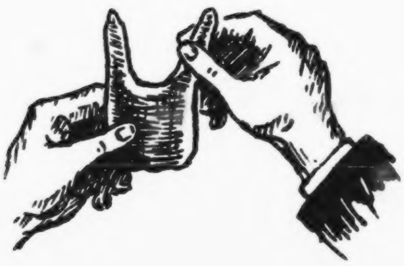
2. Soak the pieces in water for several days.



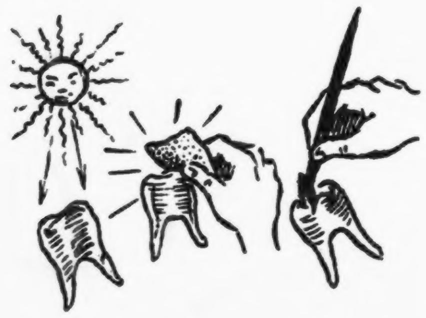
3. Prepare a fairly liquid paste (from powder or gum arabic).



4. Gradually mix the paste and paper, kneading the mixture. This should produce a smooth paste with the consistence of butter (add paste and paper as required until the right consistence is obtained).

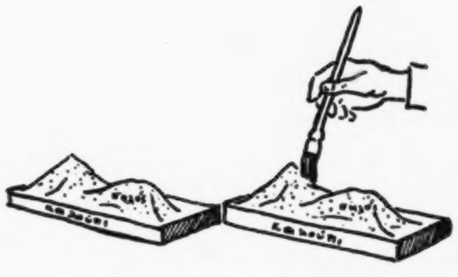


5. Use the papier mâché as if it were clay or modelling clay.

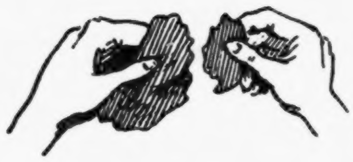


6. Allow the model to dry. Polish it with fine sandpaper. Paint it.

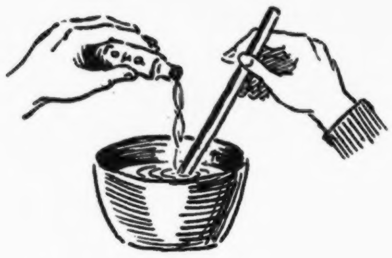
Figure 9. *Papier Mâché*



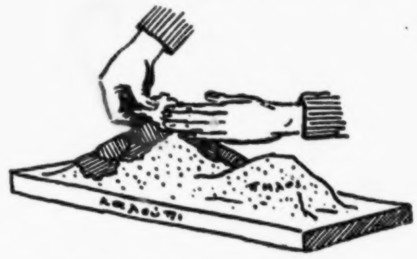
1. Make a model of the subject in, for example, clay and leave it to dry or make a framework in cardboard, wire or wire gauze. Give it a good oiling to make stripping easy.



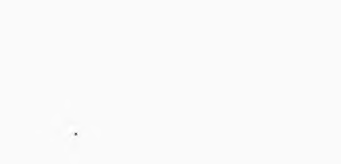
2. Tear up a newspaper into small pieces of various sizes.



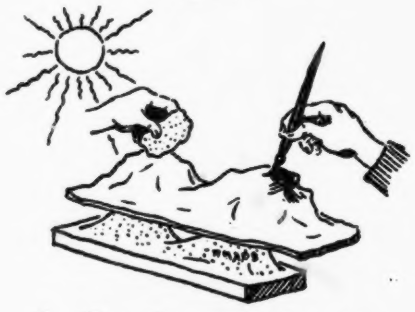
3. Prepare a very liquid glue.



4. Apply the paper in irregular layers (5 to 10) soaking each with wet glue (to make sure the glue penetrates it can be rubbed in with the fingers). Make sure that each layer covers the edges of the previous layer.



5. To emphasize the contours, add extra layers of paper.



6. Dry the model in the sun (or in an oven) and strip it. Sand-paper. Paint in "gouache" or in oils, using different colours according to altitudes (green for altitudes 0 to 200 m., yellow for 200 to 500 m., brown for 500 to 1,000 m., red for 1,000 to 2,000 m., white for altitudes above 2,000 m.).

Figure 10. *Papier mâché: relief map*

As there are not likely to be more than a few hundred photographs, subject classification is the easiest. Here is an example:

1. History — by countries or period: Antiquity, Middle Ages, and Modern Times.
2. Geography by country.
3. Natural sciences: Mankind (including medical science),
   The animal kingdom: vertebrates - invertebrates,
   Plants,
   Minerals.
4. Physical sciences: Physics,
   Chemistry,
   Astronomy.
5. Literature and arts.
6. Education.
7. Handicrafts and technology.
8. Biography.
9. Miscellaneous.

At the beginning, one cardboard folder will suffice for each of the main divisions. Subsequently, as material becomes more numerous it should be subdivided and new folders used. Each folder should have a number and indicate its contents and each photograph should be marked with the number of its folder.

IV. CAPTIONS AND COMMENTS (Figures 11 and 12)

All photographs should have a caption. Their original caption in the newspaper or journal from which they are obtained is generally unsuitable, but it is worth while copying this original caption on to the back of the cardboard on which the illustration is mounted. A new and more suitable caption should be written in rather large lettering and in Indian ink underneath the photograph, on the right hand side.

To enable the same photograph to be used for different types of lesson the permanent caption should clearly indicate the subject of the photo and the place where it was taken, e.g. "Gallery of a coalmine (France)" or "Timber wharf - Port of Douala (Cameroons) Central Africa".

Only when the photographs are in use should the additional information relating to the subject of the lesson be added. This information should first be given verbally and later written either on a slip of paper attached to the photograph or on an exhibit board.

V. PRACTICAL USES

There are 3 ways of using this material:

It may be passed by hand from one pupil to the other, fixed on an exhibit board or shown collectively by the teacher.

The following aspects lend value to a good photograph:

ARTISTIC

1. Wool spinner (Thessaly 1958).

TECHNICAL

2. Caring for sheep. How to administer medical treatment (School for shepherds, Rambouillet, France, 1957).

Good captions are short and indicate clearly the subject of the photograph and the place where it has been taken.

DOCUMENTARY

3. Market in a popular district in Paris (1957).

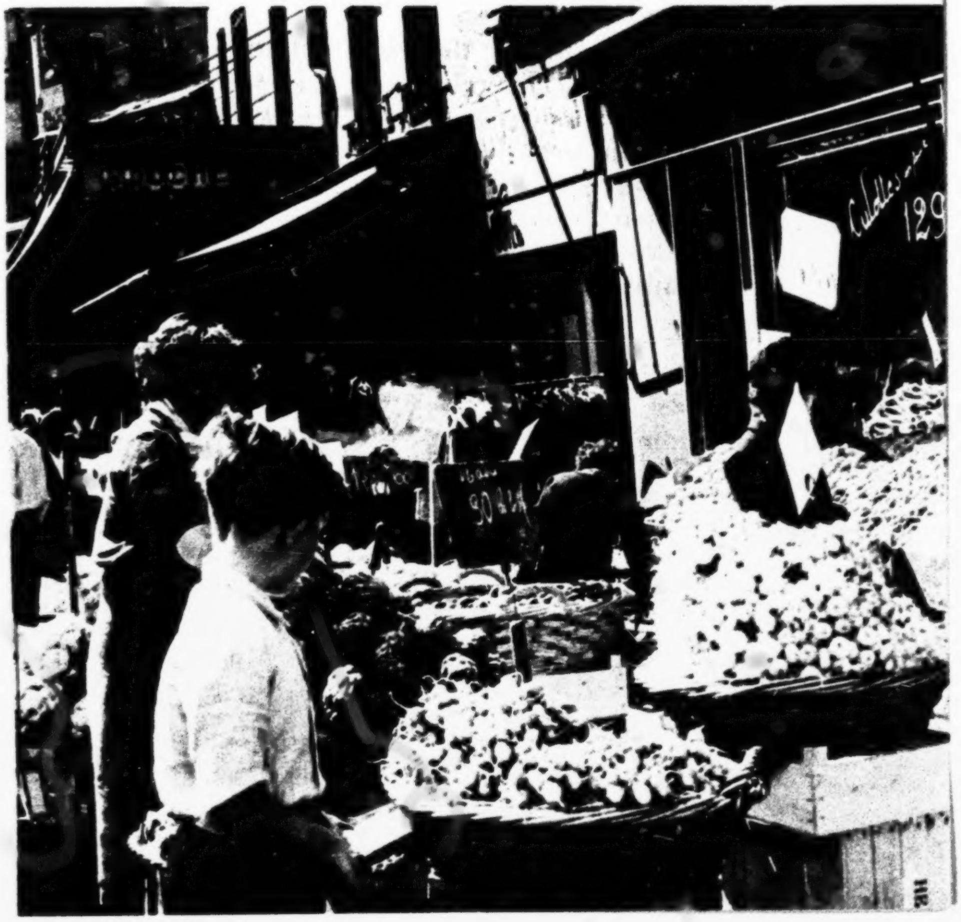
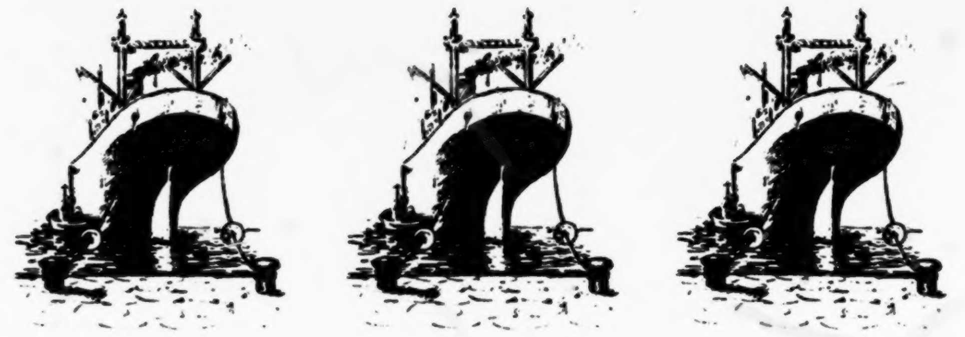


Figure 11. *Good photographs.*



1. Rats carry plague. The rats on the boat must therefore be prevented from getting ashore. For this purpose the cables are provided with metal discs.

2. Rats carry plague. How were those on the boat prevented from coming ashore ?

3. What do you notice along the cables ? What is the purpose of this ? Why must this method be used ?

Figure 12. *An illustration and its accompanying description.*

Example of the same drawing presented in three different ways: (choose the most suitable for the class)

1. All the explanations are provided.
2. One explanation is given. A simple question is asked.
3. Three questions are asked (assuming that the explanations were previously given by the teacher).

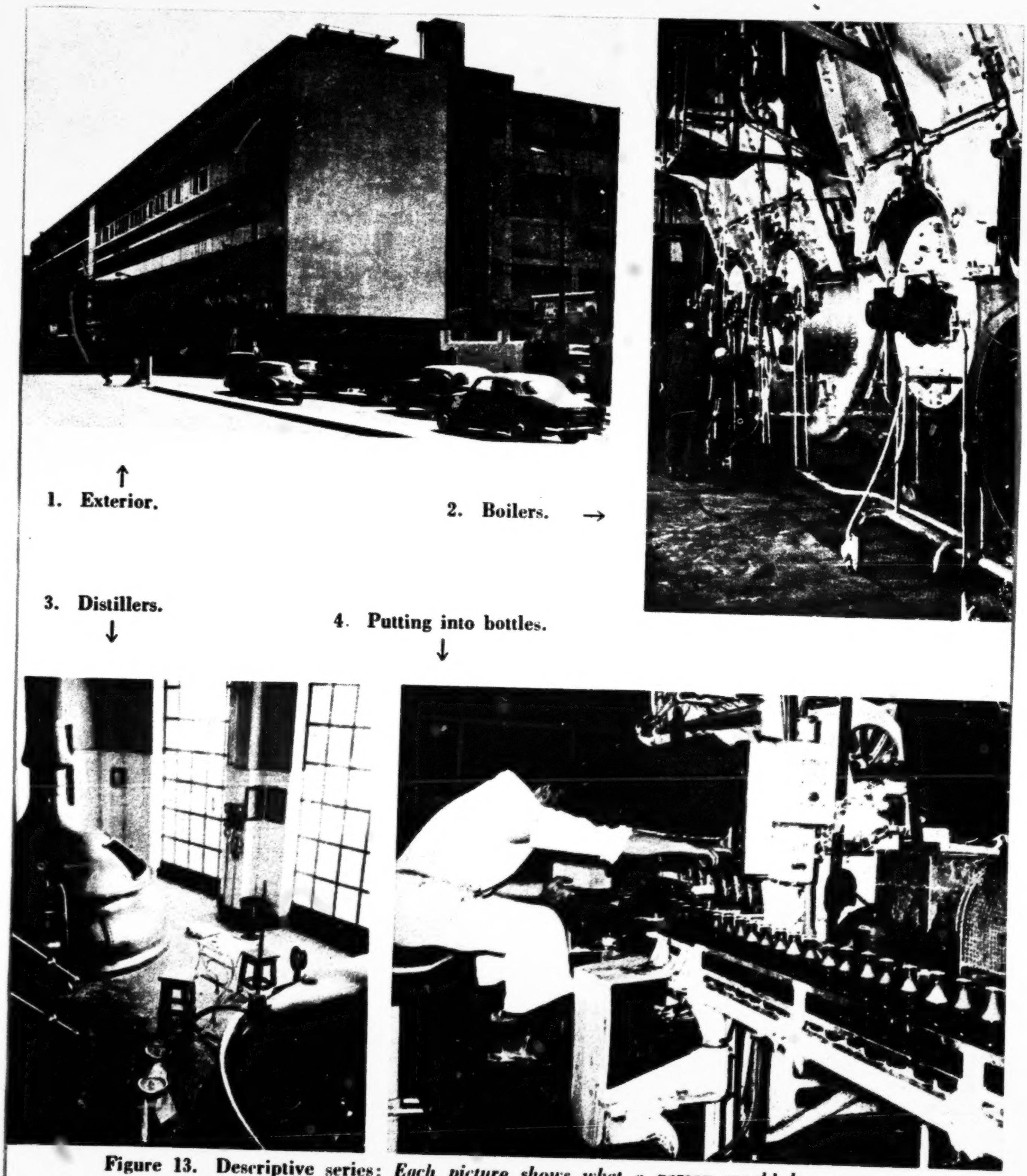
The first two methods have only a limited teaching value largely because the illustration is not examined at the same time as the explanation is given.

The third is the best method but the picture used must be fairly large. This is rarely so, in the case of those found in newspapers and almost never in a set of illustrations.

The best procedure is to use all three methods, i.e. a few large photographs during the lesson and a set of small photographs with written descriptions which are subsequently passed round the class, the whole lesson being finally summarised with captions on an exhibit board.

USE OF A SERIES OF ILLUSTRATIONS

It is general practice to use not one but several illustrations, the subjects of which are connected in different ways.



1. Exterior.

2. Boilers.

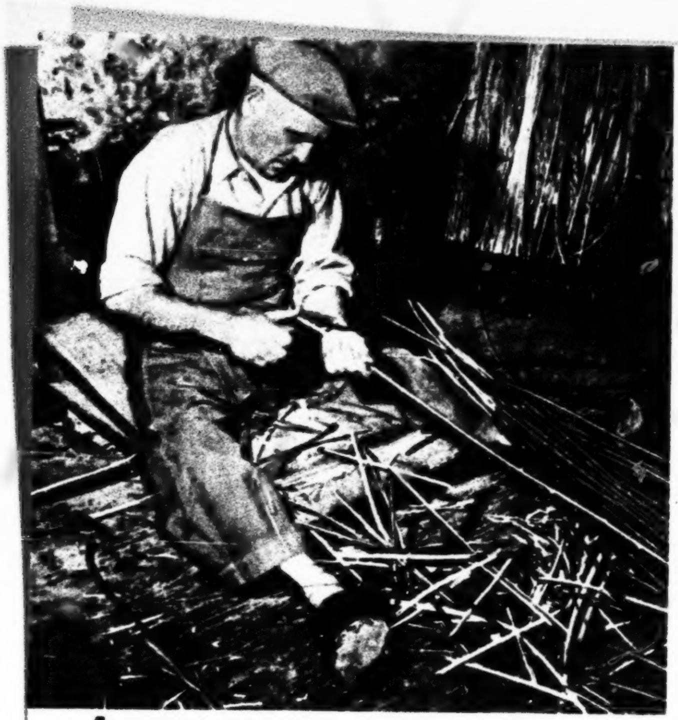
3. Distillers.

4. Putting into bottles.

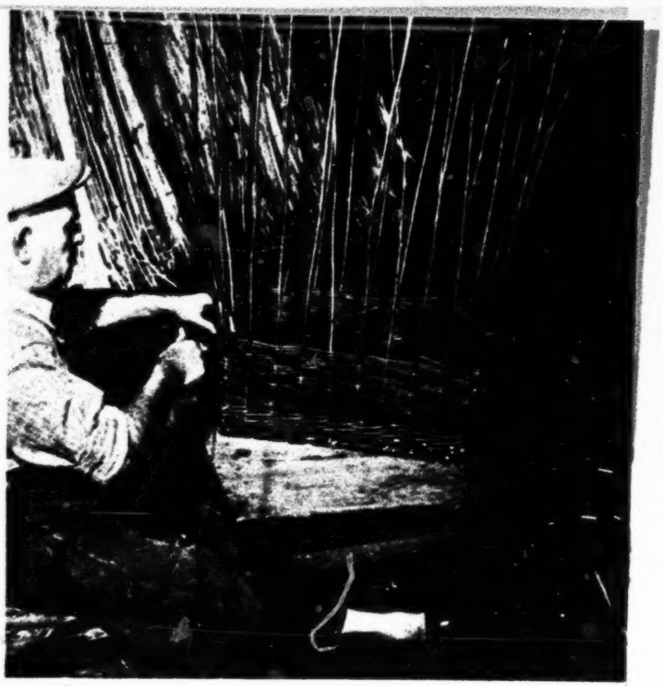
Figure 13. Descriptive series: *Each picture shows what a person would have seen while visiting this factory (Brasserie Fix, Athens).*

DESCRIPTIVE SERIES (Figure 13)

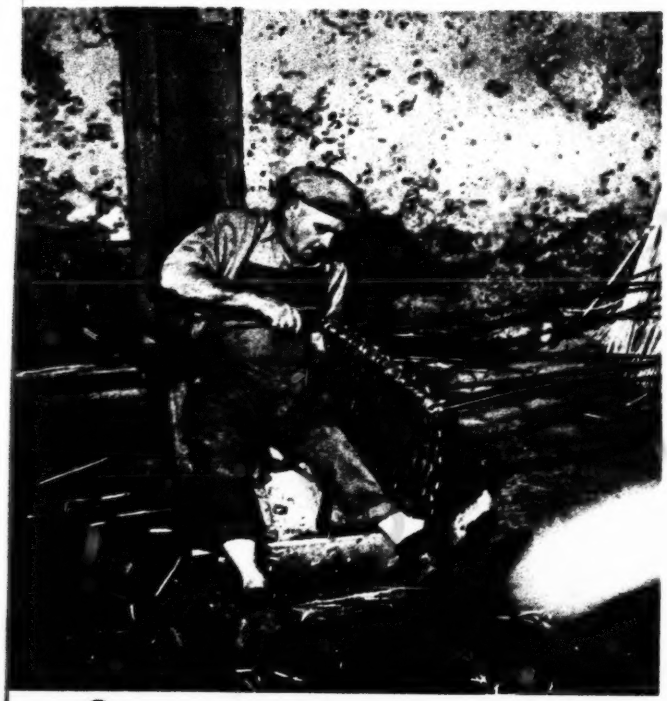
This may be used to show a particular locality. In this case each picture shows a new view as if a traveller were walking through and taking photographs on the way.



1



3



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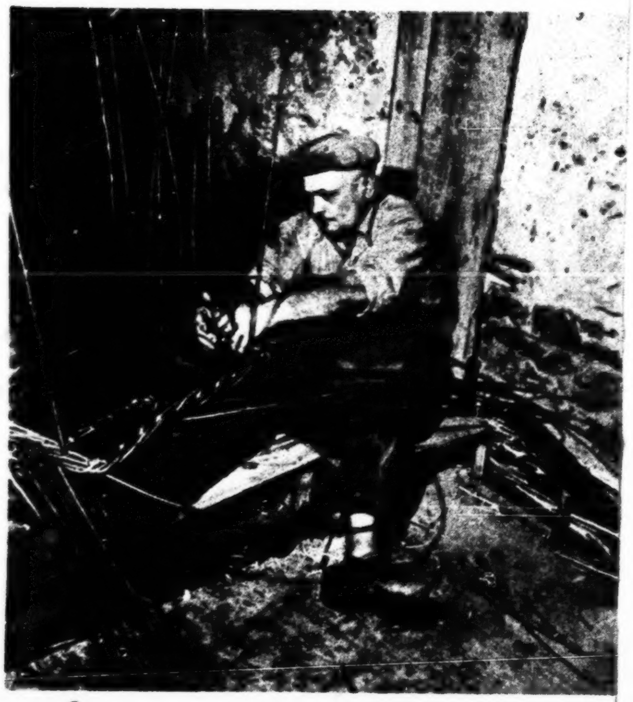
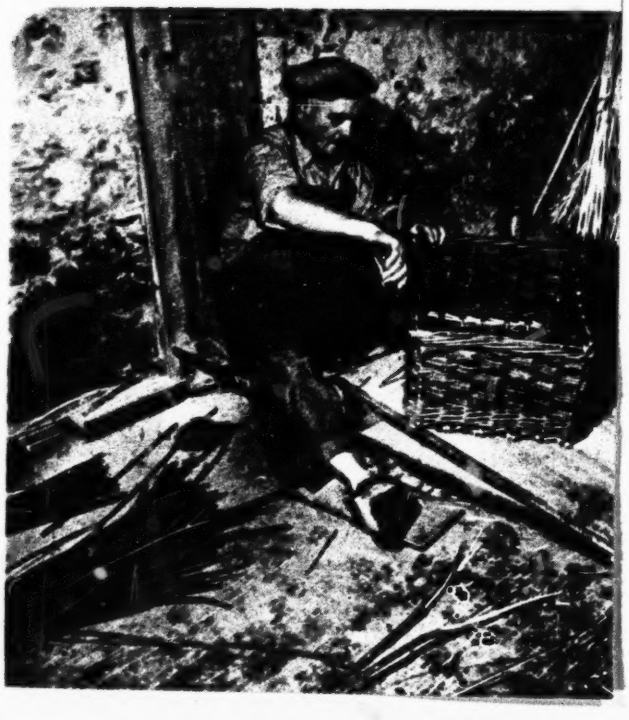


4

1. Trimming cane for a wicker basket.
2. The bottom part is finished. Work on the sides starts.
3. Weaving the sides.
4. Weaving the edge.
5. Finishing touches.

Figure 14. Chronological series: *Stages in the making of a basket.*



5

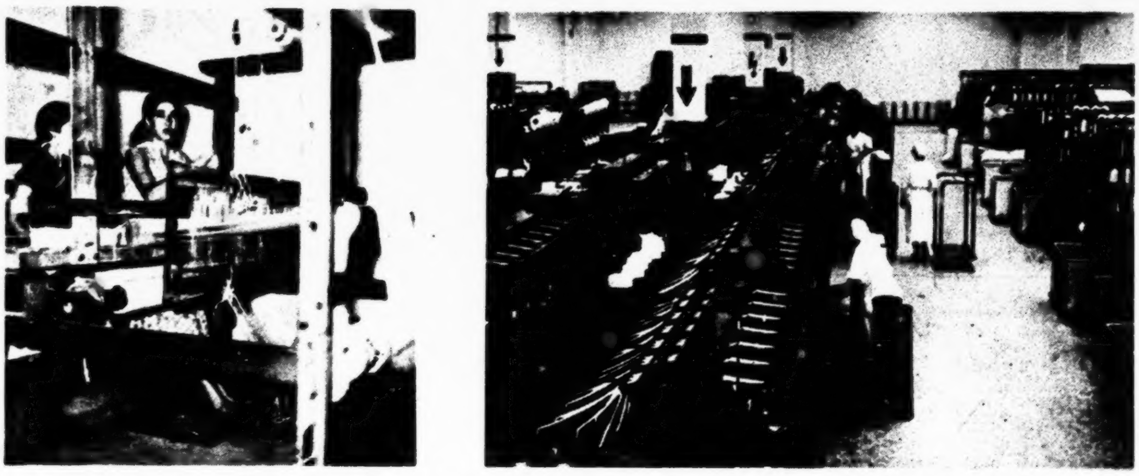


Figure 15. Grouping by contrast: *The comparison between these two photographs brings out very clearly the transfer of wool spinning from the handloom period to that of industry.*

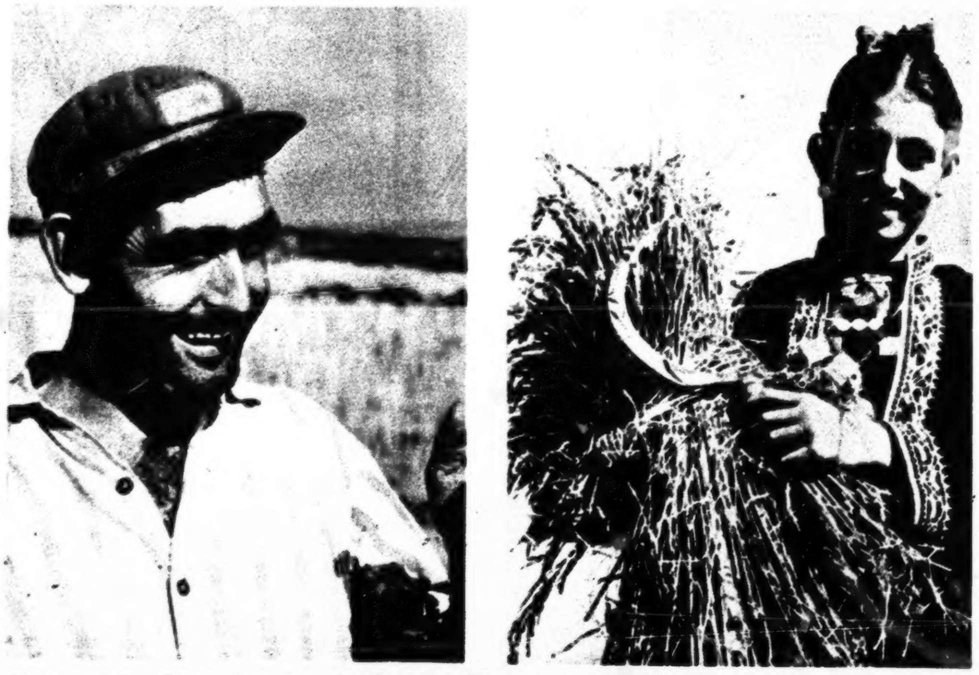


Figure 16. Grouping by similarity: *The same satisfaction can be seen on the faces of the young Greek girl and the Sardianian peasant.*

CHRONOLOGICAL SERIES (Figure 14)

This shows the different stages of some phenomenon, in the making of an object, the flowering of a plant, extension of roots, and so on.

GROUPS OF PICTURES SHOWING DIFFERENCES OR SIMILARITIES (Figures 15 and 16)

These can be used either to bring out two or more contrasts such as techniques of craftsmanship and industry, Mediterranean

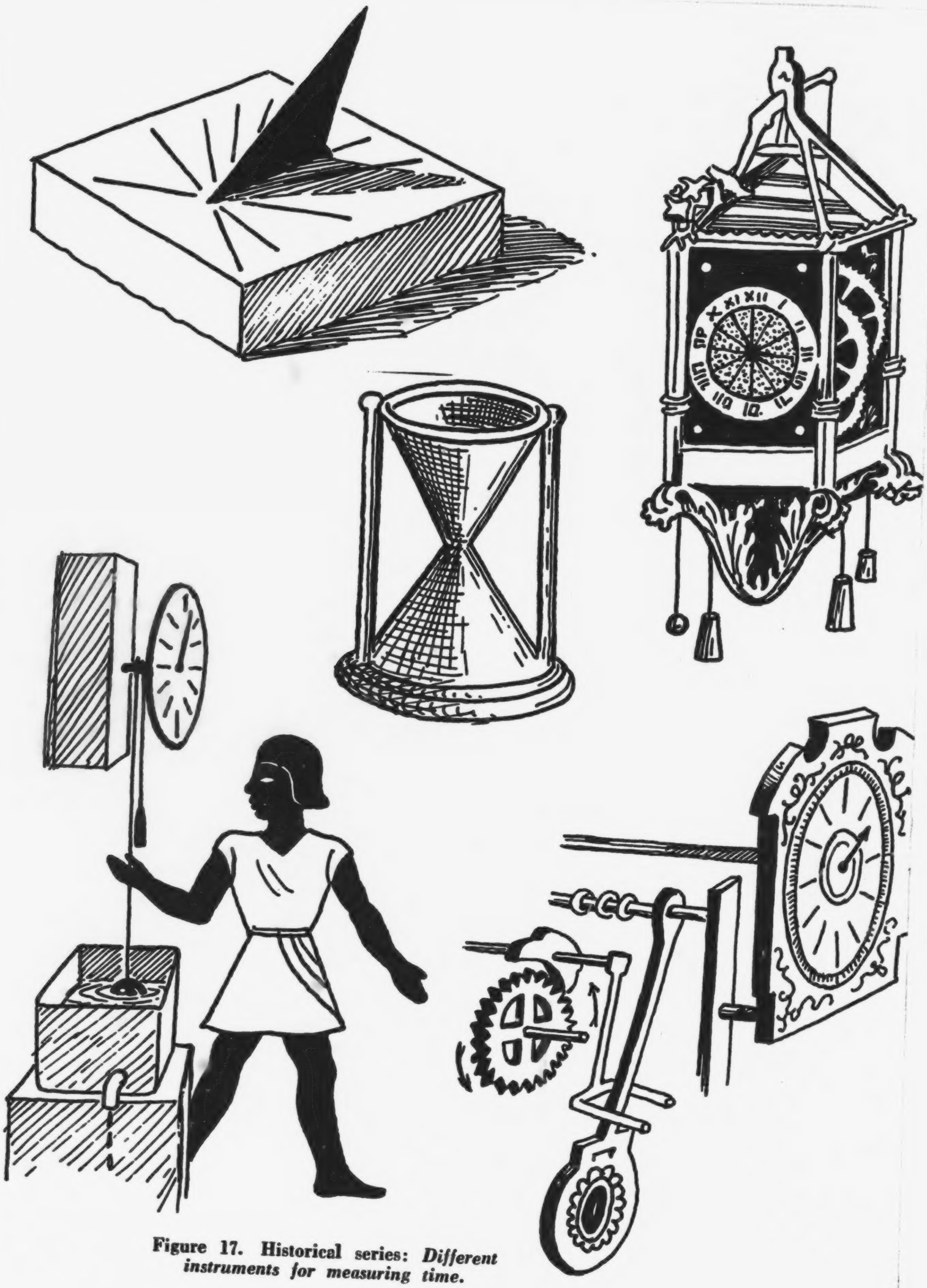


Figure 17. Historical series: ***Different instruments for measuring time.***

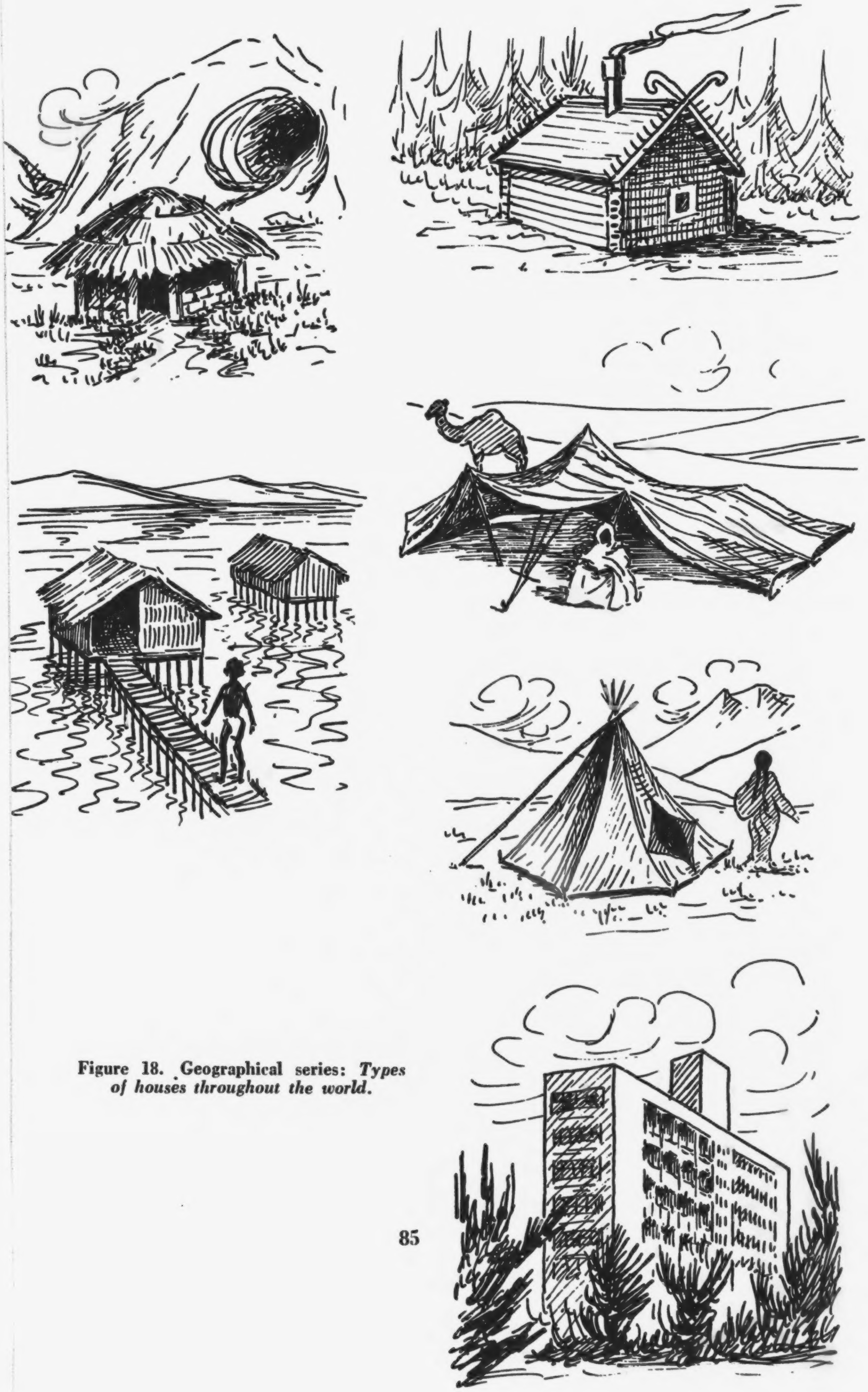


Figure 18. Geographical series: *Types of houses throughout the world.*

and Alpine landscape, or to emphasize more or less important similarities and variations such as similar work done in different countries, different types of tools, etc.

HISTORICAL OR GEOGRAPHICAL SERIES (Figures 17 and 18)

As the name indicates, the historical series gives the history of a particular subject: clothing, housing in Western Europe, methods of measuring time.

The geographical series is a collection showing the various kinds of housing to be found throughout the world, ways of transporting goods or passengers in all countries, etc.

DRAWINGS

1. EVERYBODY CAN DRAW

"But I cannot draw", many readers will think when they see the above heading, "I have never been able to, I can't draw a house straight and my sketches of people and animals look like nothing on earth". All right, let us have a closer look at the problem. Not all teachers are artists, nor are they expected to be. It is quite good enough if they can *copy* the drawing of some everyday objects, i.e. a mosquito or a bird, or make little outline drawings, such as those in figure 27. This is really something which anyone can do with a little practice, and even if it is not perfect it does not matter. Begin by very simple drawings and little by little you will find that you are expressing yourself as easily with a pencil or a piece of chalk as by word of mouth.

2. VALUE

The great advantage of a drawing is that it costs nothing and is limited in what it can convey only by the talent of the draughtsman.

It is easier to understand than the photo because it contains no unnecessary details, but it is less convincing.

3. PRESENTATION (Figures 19, 20 and 21)

A drawing must have a caption and in most cases should carry some additional explanation.

As with photographs, drawings can be grouped in series, this making their impact all the greater. (Figure 22)

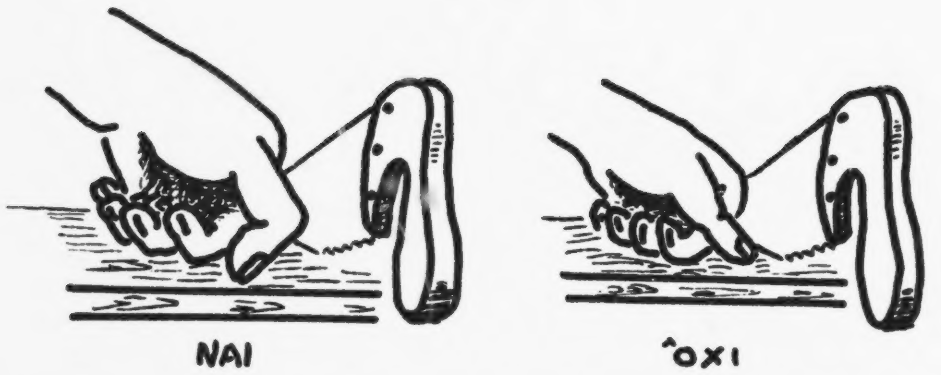


Figure 19. *Drawing which shows how to start sawing. It is perfectly clear, without one unnecessary detail.*

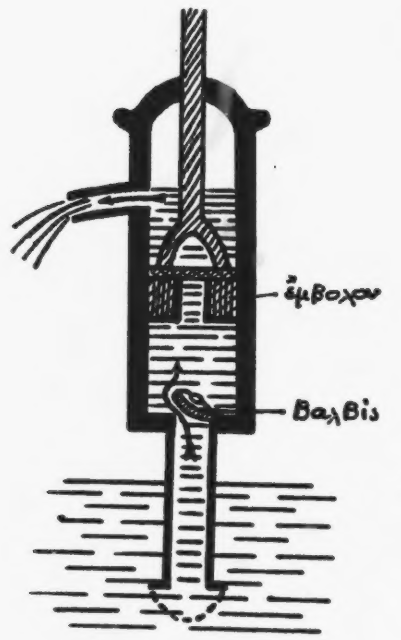


Figure 20. *Here, it is sufficient to give the names of the different parts of a pump.*

4. VALUE FOR TEACHING PURPOSES

A drawing can be used in the first instance to replace an illustration which is unobtainable. It can also be used to supplement the observation of an illustration or object to ensure that the pupils do not miss certain details.

This latter point is essential if teaching is to be effective and the various exercises are to have their full effect. In general, drawings can be made more explicit by diagrams.

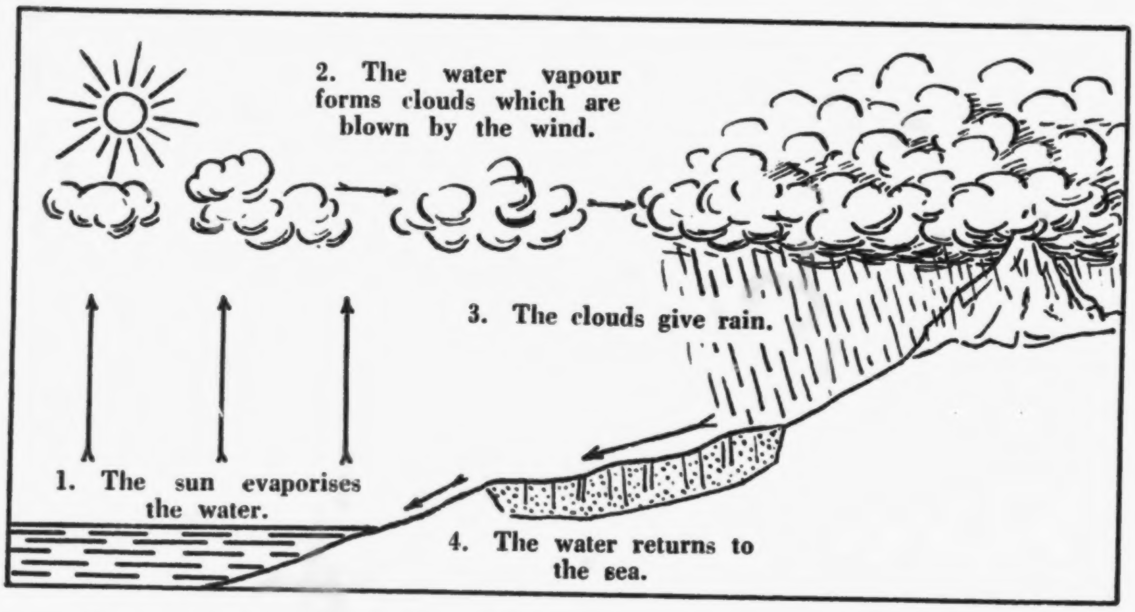

2. The water vapour forms clouds which are blown by the wind.
3. The clouds give rain.
1. The sun evaporises the water.
4. The water returns to the sea.

Figure 21. *With this design, a brief commentary explains the cycle of water.*

5. PRESENTATION

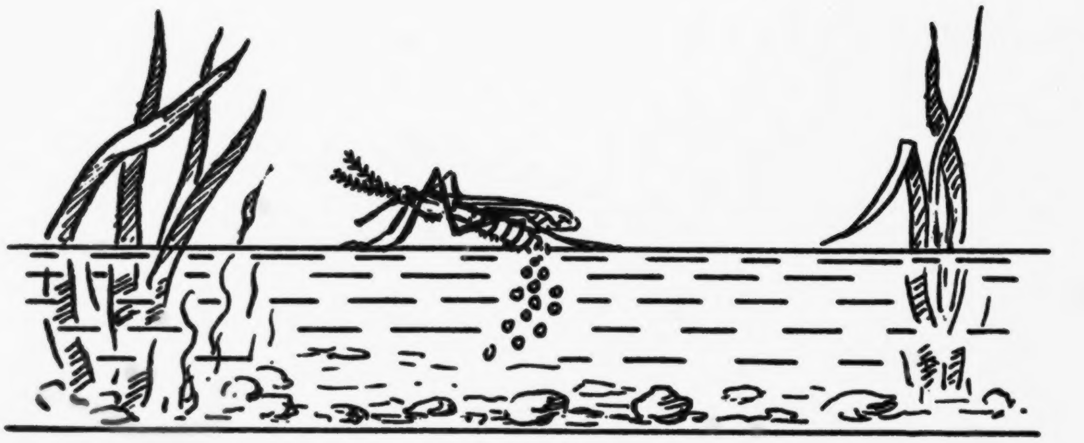
The drawing may be done on paper and either pinned up or directly traced on to the blackboard.

DIAGRAMS (Figures 23, 24 and 25)

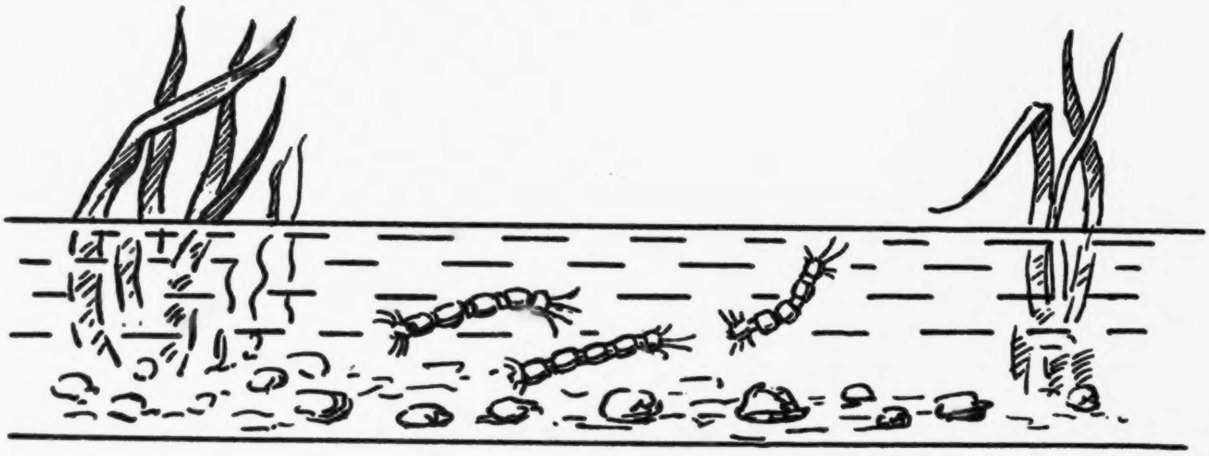
Diagrams are of course more abstract than drawings but are very useful in the applied sciences, e.g. to show an electrical circuit, etc. Diagrams of cross-sections are useful in botany or technology, etc. Grouped in a series, they can be used for example to show how a machine works.

GRAPHS, ETC. (Figure 26)

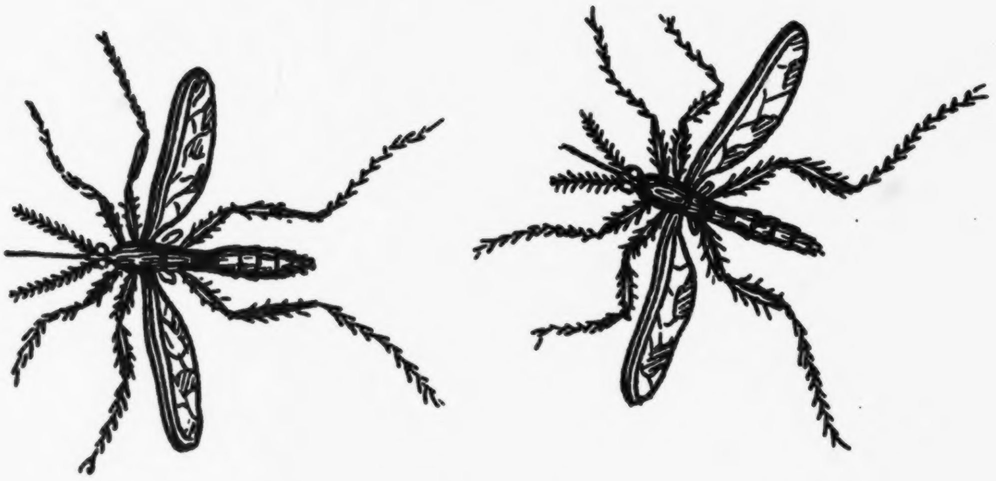
Graphs are mainly used to bring home the significance of a set of figures. Statisticians have thought out a whole series of symbols for this purpose: curves, oblongs, segments of circles, etc. They should be used sparingly for adult education as they are difficult to understand because of their abstract nature.



1. The mosquito lays eggs in the water.



2. The eggs become little worms.



3. A fortnight later, the little worm becomes a mosquito.

Figure 22. ***Series of sketches summing up the cycle of the life of a mosquito. It shows, in a striking way, that which has already been explained.***

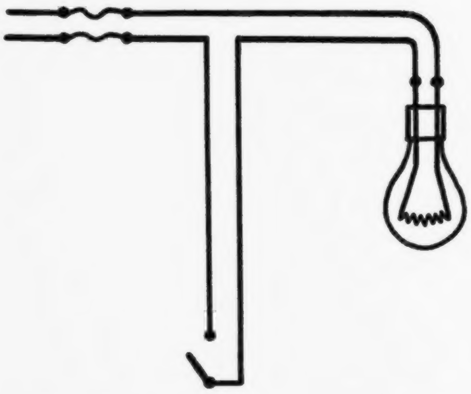


Figure 23. *Plan of a simple wiring diagram.*

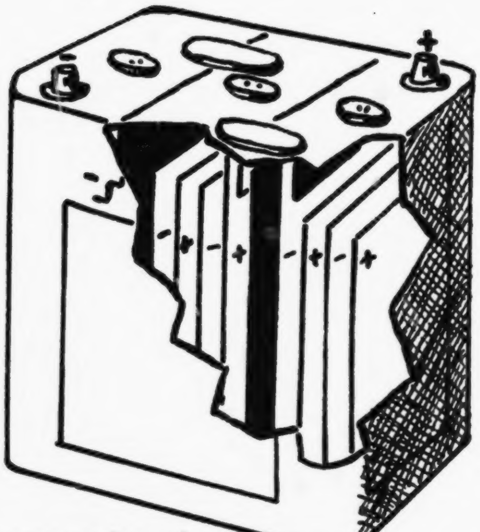


Figure 24. *Plan of a cross-section of an accumulator.*

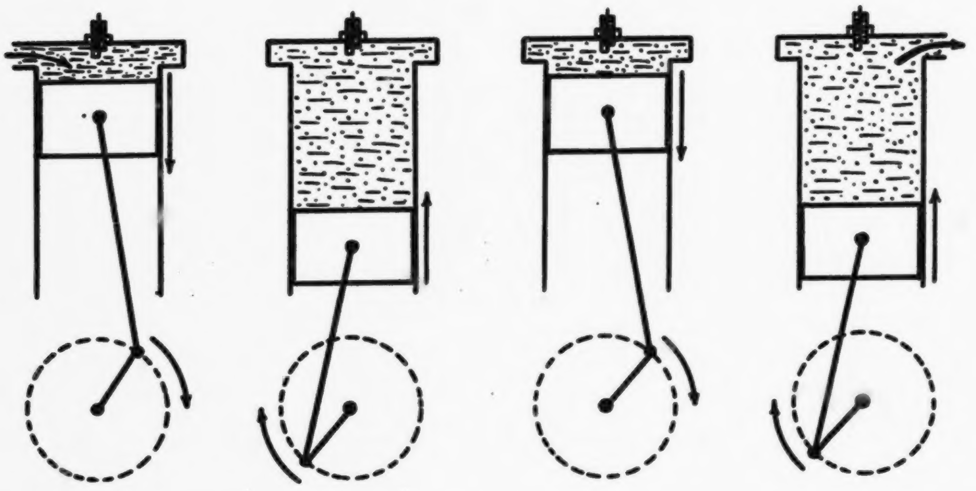


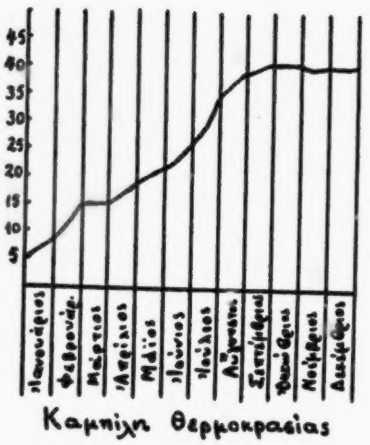
Figure 25. *Diagram explaining the workings of a 4-stroke internal combustion engine.*

In the case of illiterates of semi-literates they may even be quite meaningless.

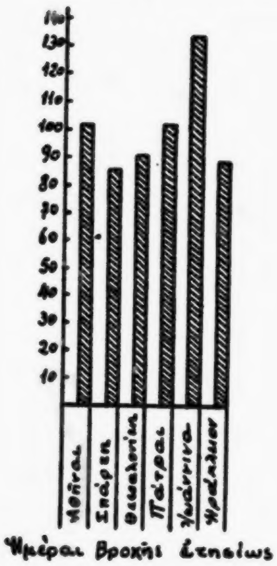
The best idea is to use graphs illustrated by little drawings directly connected with the subject, such as little pictures of men for population, or animals, bags, boxes, plants, etc.

The various ways in which this technique can be used will be easily understood from the illustrations in Figures 26/4, 5, 6.

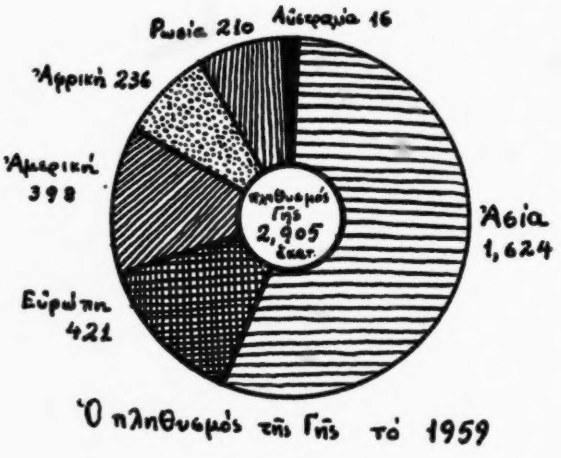
In conclusion, it may be said that even this kind of diagram is often difficult to interpret and should be used with discretion.



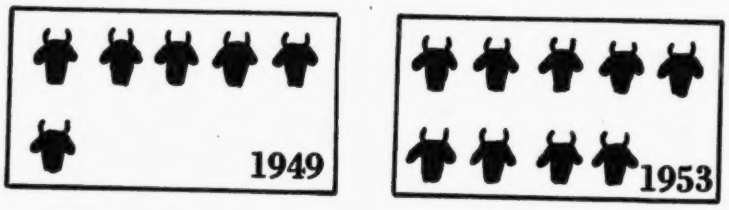
1. Temperature *curve.*



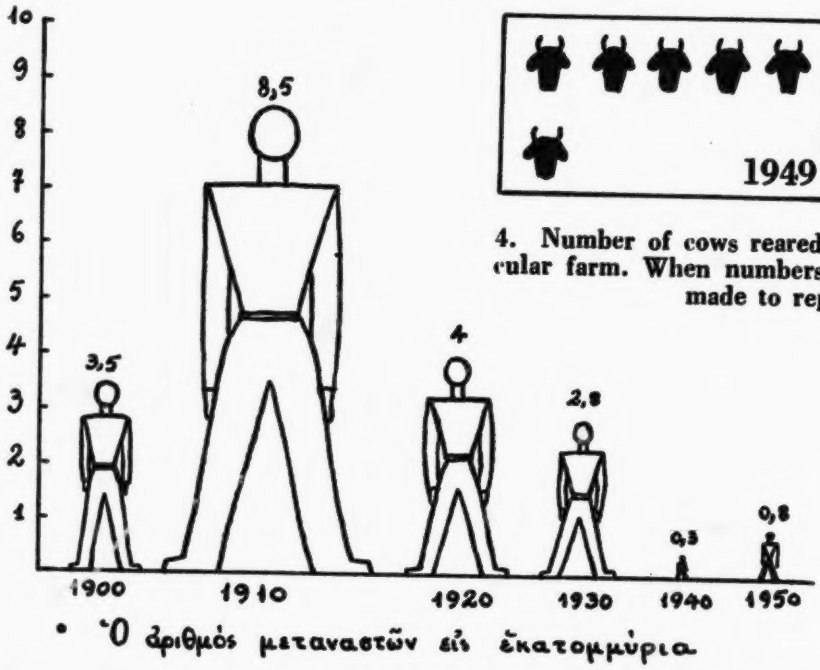
2. *Oblongs* proportionate in length to the number they represent.



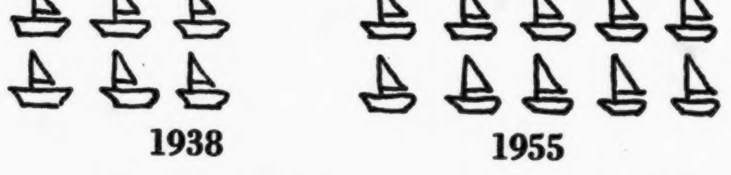
3. *Segments of Circles.* Each segment is proportionate to the number it represents.



4. Number of cows reared in 1949 and 1953 on one particular farm. When numbers are small each drawing can be made to represent one unit.



5. Number of emigrants to the U.S.A. The size of the character can be proportionate to the number it represents.



6. Number of boatloads of peaches in Greece. Each little drawing of a boat may represent 1,000 boatloads of peaches.

Figure 26. *Graphs.*

THE USE OF THE BLACKBOARD

Drawings and diagrams are very often made on a blackboard. The humble blackboard still remains the teacher's cheapest and most important aid. Its only disadvantage is that it may give adults the feeling that they have gone back to school and this can be quite an obstacle. An effort should therefore be made to combine its use with other audio-visual media which are more attractive and more novel, such as felt boards or film strips.

HOW TO DRAW ON THE BLACKBOARD (Figure 27)

It is always preferable to make a quite light sketch first and then step back two or three yards to see what it looks like. If necessary it should then be altered and when satisfactory can be given a stronger outline.

It is also possible to do the drawings beforehand. Admittedly, this makes them a little less interesting as there is nothing left for the class to discover unless the drawing is covered until required, by a little curtain or a sheet of paper held in position by drawing pins.

Complicated drawings or difficult maps are best prepared before the lesson, either free-hand, i.e. without instruments, or with the help of a large ruler and a set-square or by cross-ruling, if an enlargment is required. For small character designs or simple landscape sketches, the following illustrations might serve as suggestions.

ENLARGEMENT BY CROSS-RULING (Figure 28)

This procedure is somewhat lengthy but very reliable. The original drawing should be cross-ruled into squares of 1 to 5 cm as shown. A similar grid should then be lightly ruled on to the blackboard, each square being 2, 3, 4, 5... 10 times larger than the original, according to the enlargement desired. The figure should be numbered as shown and each square on the blackboard should reproduce the contents of the corresponding square in the original.

OTHER USES

Difficult words

Difficult, new or technical words should be written on the blackboard while their meaning is being explained.

Summaries

It may be very useful to summarise the main points in each lesson on the blackboard either at the end of the lesson or as they crop up. This summary should always be clearly separated from the drawings in order not to create any confusion.

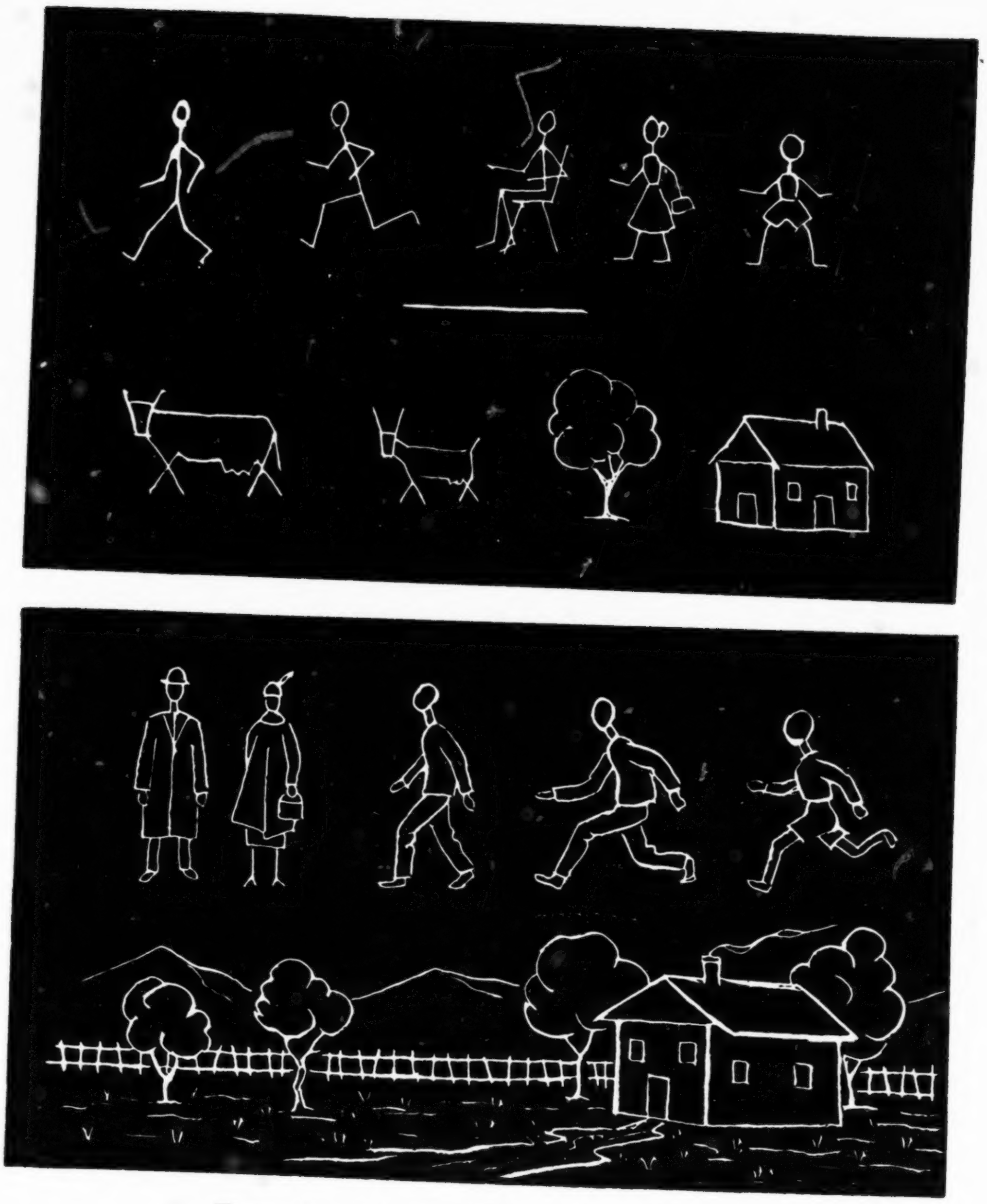


Figure 27. *How to draw on the blackboard.*

GENERAL RULES FOR USING A BLACKBOARD

- Drawing and writing on a blackboard should be *sufficiently large*, and the teacher should verify this by viewing the board from different parts of the classroom, which will incidentally enable him to make sure that there is no shine on the board.
- Writing should be clear: letters should be well formed and well spaced out and lines should be straight. The simplest type of lettering should be used (script and capital letters when the Latin alphabet is used).

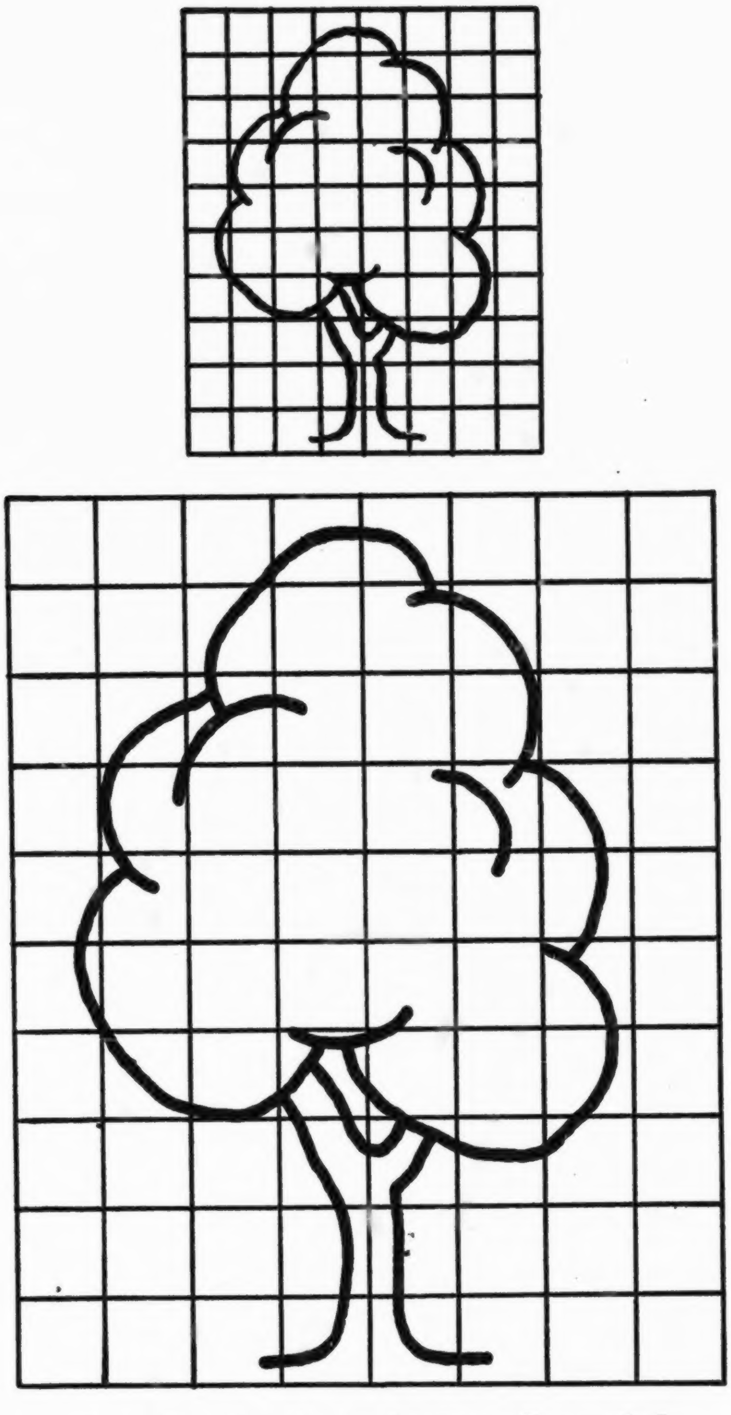


Figure 28. *Enlarging by the cross-ruling method.*

- Do not crowd the blackboard. It must be easy to look at.
- If possible *two or three colours* of chalk should be used for drawing to suggest reality, i.e. leaves should be green, blood should be red, etc. The lines and surfaces of diagrams should be differentiated, so as to make them much more comprehensible.

— Needless to say, as soon as the teacher has finished writing on the blackboard he should *stand on one side* and use a ruler to emphasize what he is saying.

Example: Here is a very easy way of showing how water in a well can become unfit to drink (Figure 29).

N.B. For the sake of clarity we have made a drawing for each detail in the story; on the board there will be *one big drawing only* which will be filled in as the explanation proceeds.

THE EXHIBIT BOARD

This is a simple wooden or cardboard panel on which illustrations, etc., can be pinned.

USE OF THE EXHIBIT BOARD IN TEACHING

It is difficult to use the exhibit board and *teach at the same time* unless the illustrations are large enough to be read from a distance, in which case it is placed next to the blackboard and photographs pinned to it as soon as they have been shown to the class.

But generally speaking, the photographs are not large enough and the board has to be used *after the lesson.*

The teacher pins up his illustrations in the order in which he showed them to the class and adds the captions. The board thus serves to remind the pupils of what they have learned and enables them to have a good look at what they may originally have seen rather fleetingly.

GENERAL USE

Apart from teaching, the exhibit board may be used for more general purposes. Every Centre should have one situated in the room which is most used. It can, for example, be divided into three parts with permanent headings:

Notices:	This will contain all information on activities at the Centre.
Current topics:	The teacher will use this section for all the photographs he can find on current topics. It will be a kind of wall newspaper, and, humble as it may be, can be made most interesting.
Teaching purposes:	This section (which may even not have a heading) can be used for illustrations of lessons unless the Centre runs several different teaching sections each with its particular board reserved for educational topics.

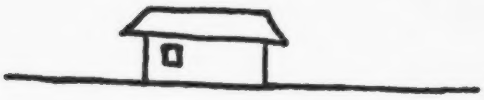
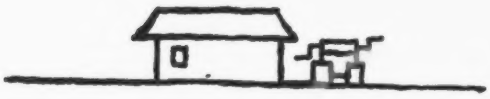
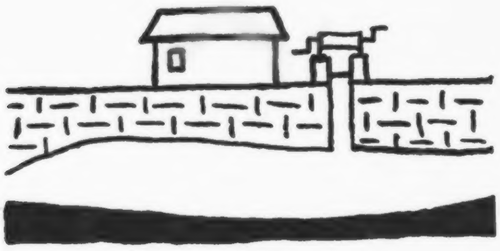
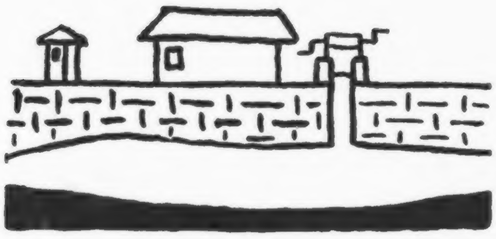
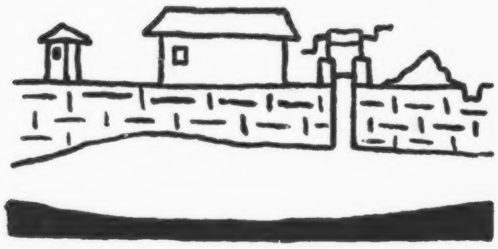
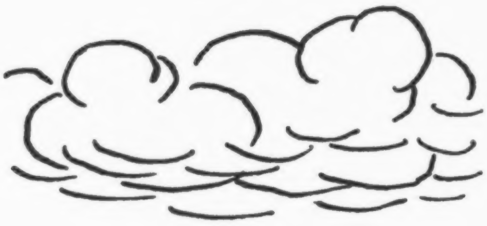
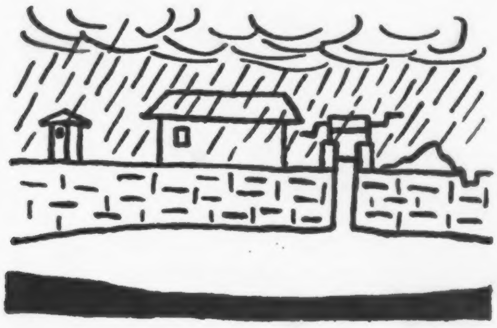
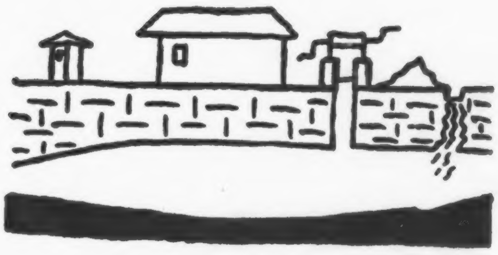
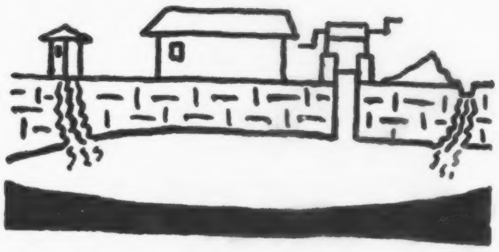
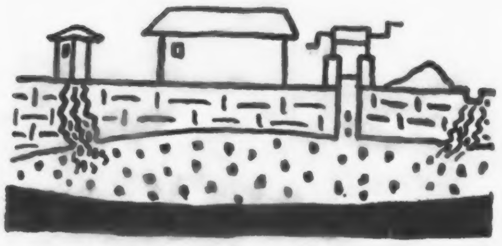
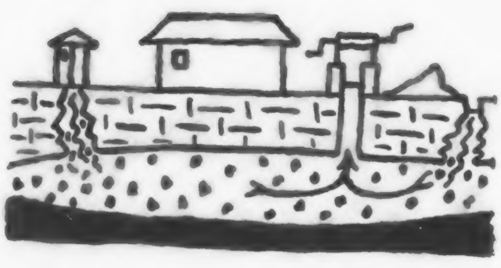
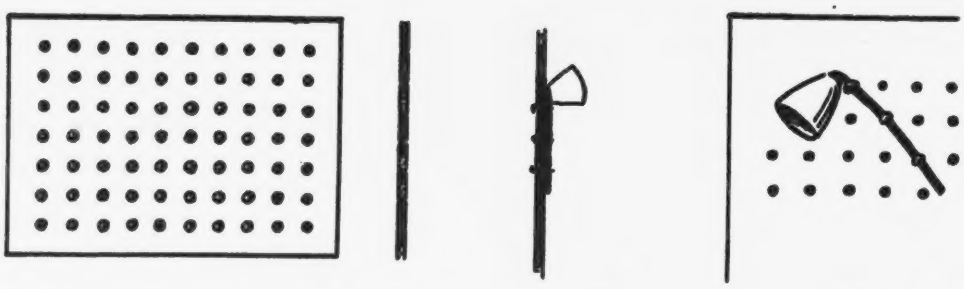
	1. Here is a little farm.	Draw the farm.
	2. Near the farm there is a well.	Draw the well.
	3. A water table has formed over an impermeable layer.	Add the water table and indicate the impermeable layer by shading. Write in the necessary captions.
	4. Near the house the farmer has built a latrine.	Draw the latrine and write: W.C.
	5. He has also installed a midden and dug a pit for the liquid manure.	Add a manure heap and the pit for the liquid.
	6. But the autumn clouds begin to pile up.	Draw the clouds.

Figure 29. *Use of the blackboar*

THE STORY

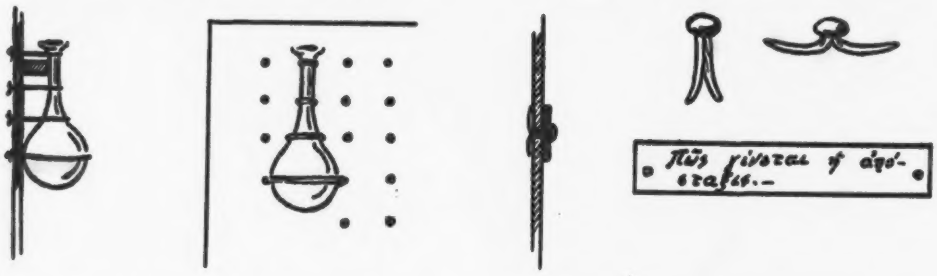
7. Soon it starts raining.	Indicate the rain.	
8. Under the action of the rainwater the liquid manure seeps into the ground.	Show the direction in which the liquid manure seeps by arrows.	
9. The waste matter from the W.C. also seeps into the ground.	Draw arrows.	
10. Now the water is polluted.	Draw a series of dots in the water.	
11. The water in the well is now unwholesome and anybody drinking it is sure to catch a disease.	Transfer several dots from the water table to the water in the well.	

e pollution of water.



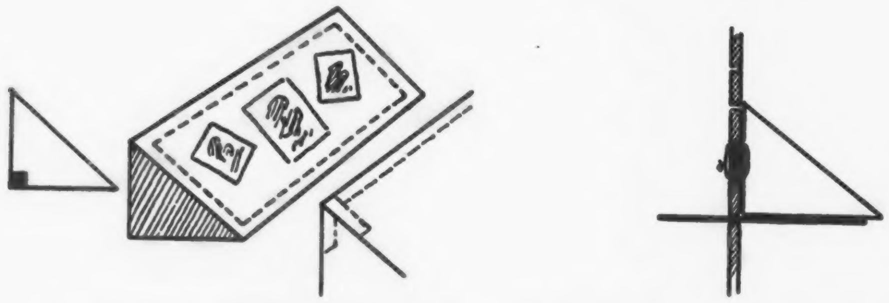
1. Sheet of perforated plywood.

2. How to attach an object.



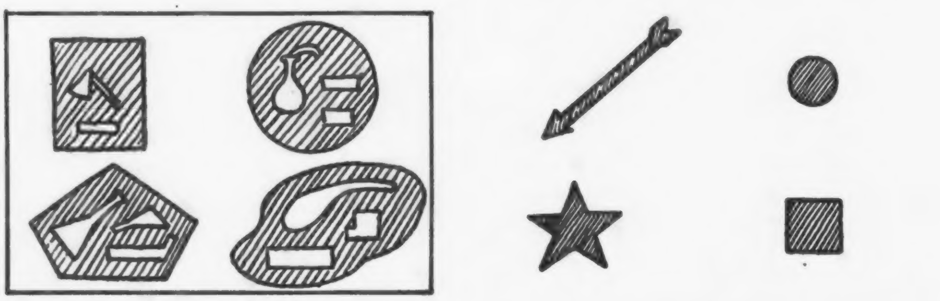
3. How to attach a glass tube, a baloon flask.

4. How to attach a legend for inscription (by means of paper-clips, large nails, wooden pegs, etc.).



5. Display windows for small objects (fine glass and cardboard, attached with cellotape).

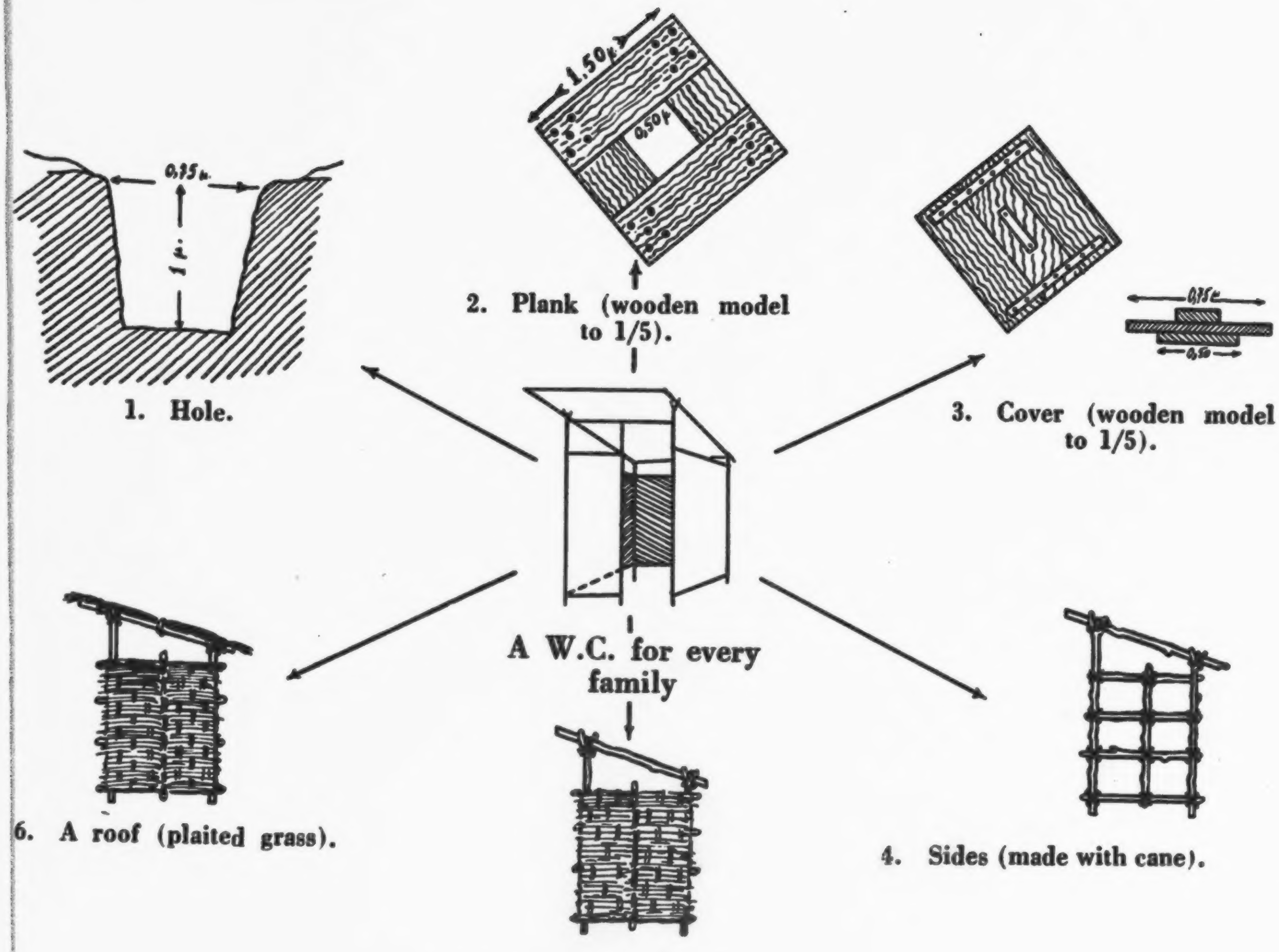
6. How to attach the display window (by means of two large wooden pegs driven in securely).



7. Vary the colour and shape of materials used (drawing paper, cloths).

8. Signs cut out of paper to attract attention or to mark the beginning of a legend or inscription.

Figure 30. *The exhibit board.*



1. Hole.

2. Plank (wooden model to 1/5).

3. Cover (wooden model to 1/5).

A W.C. for every family

6. A roof (plaited grass).

4. Sides (made with cane).

5. Walls (made in plaited grass).

Figure 31. *Small exhibitions: the construction of a W.C.*

SMALL EXHIBITIONS (Figures 30 and 31)

The exhibit board can also be used for pinning up small objects, i.e. plants or miscellaneous collections, in which case it should be provided with a series of lines of perforations.

THE FELT BOARD

The felt board is now very well known and has proved its worth particularly in the teaching of reading. It is a board about 2 × 1.5 m covered with felt or flannel on which movable letters can be pinned up to form words and syllables.

The letters are cut out of cardboard backed with sandpaper. With a little pressure the latter adheres to the hairs on the felt when the card is placed on the board but it is also easy to take down.

The fact that the letters, syllables and words are made palpable is a great help to children as well as adult learners.

The felt board has a further advantage, namely that it is extremely cheap and can easily be manufactured by the teacher himself.

I. How to make boards and letters

1. *The letters*

These can either be cut from a newspaper or hand-drawn, to the dimensions indicated below in the illustrations (Figures 32/1, 2, 3). A fairly big set of capital and small letters should be built, beginning with the small letters, the number varying according to whether the teacher intends to compose words or short sentences. It is also obvious that there should be a larger supply of certain letters which are used more frequently than the others.

In dealing with the Greek alphabet all that is needed at the beginning is a set of the following small letters :

Vowels, 3 of each i.e.		21
diphthongs (written together on a single piece of cardboard)	1 of each	8
Consonants	1 of each	17
Aspirations and accents	2 of each	8
		54

giving, then, a total of 54 letters in all.

Subsequently, a set of capital letters will have to be added (1 sample of each letter) and the number of small letters will have to be increased to needs.

The type of cardboard used should be thick enough to keep rigid (the covers of certain exercise books may be suitable). It should then be cut out (Figure 32/4). If the cardboard has a coloured surface, white paper should be stuck on one side, the letters having first been drawn on this paper. If the cardboard is white the letter can be outlined directly. They should be fairly thick in order to be visible from a distance (Figure 32/5).

A square or rectangle of coarse sandpaper should be stuck on the back of each piece of cardboard (No. 3 for example). For vowels the dimension of the sandpaper should be 2 × 2, for diphthongs 2 × 3.50 and for capitals 2 × 4 (Figure 32/6).

2. *The board*

A plain material should be chosen. Before buying or cutting, make sure that the letters adhere well. To facilitate adherence, the surface should be gently stroked with the piece of cardboard in order that the sand paper catches, and letters should be firmly pressed into the board with the palm of the hand.

The material must be taut. It is best to fix it with drawing pins to a wall, or better still, to a blackboard placed on an easel. In fact, the letters will adhere better on a sloping surface. The equipment is now ready. It only remains to see how it should be used and this will of course depend on whether the method used for the teaching of reading is analytical or synthetic.

II. USE FOR THE TEACHING OF READING

Here are a number of possible exercises :

A. Recognising a letter or a syllable.

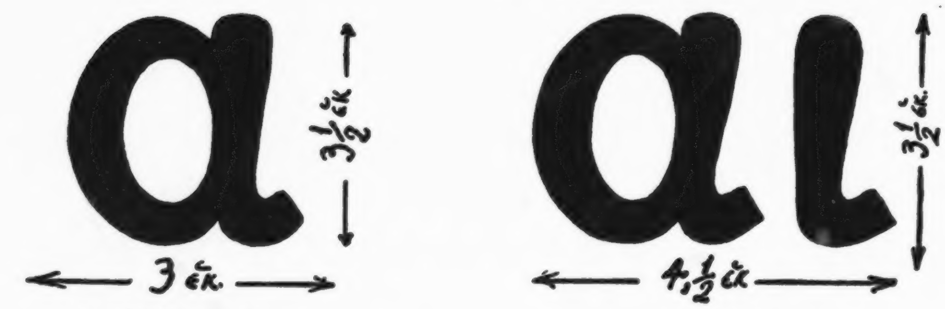
1. **choose a cardboard letter similar to one already fixed on the board.**
2. **pronounce a letter on the board.**
3. **choose from several cardboard letters the one representing the sound pronounced by the teacher.**
4. **same exercises with syllables.**

B. *Analysing :*

1. **a word into syllables (Figure 33/1).**
   The teacher fixes a word on the board :
   - **he splits it up into syllables which he clearly separates and then reads the word, indicating the syllables he is pronouncing by pausing between each syllable.**
   - **the word is then put together again and the pupils separate into syllables in their turn.**
2. **A syllable into letters (Figure 33/2)**
   πα is split up by the teacher into π and α which are separately pronounced.
   Similarly τε and ρας are split up into τ and ε and ρ,α,ς

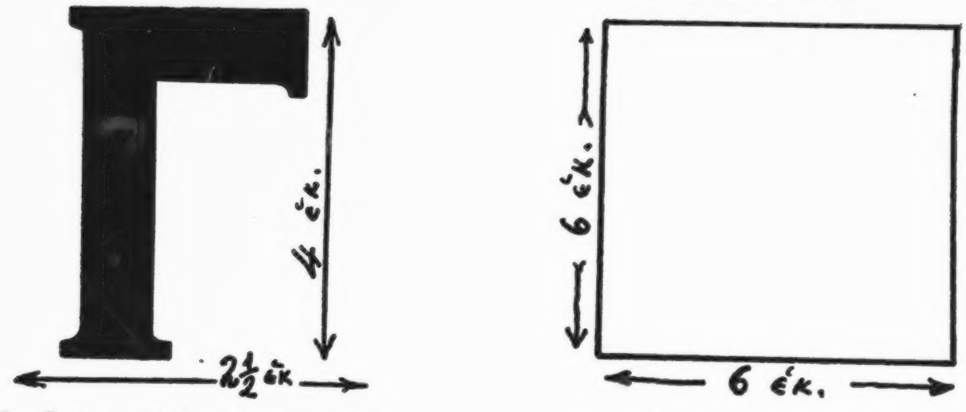
C. *Synthesis :*

1. **of syllables (Figure 33/3)**
   π, α are pronounced separately
   The cardboard letters are then put together and pronounced at the same time so that sound and contact coincide.
   Similarly, if π and ο are known, the exercise is to put together to obtain πο in a single breath.
   And so on with the other known consonants.
2. **Words (Figure 33/4)**
   As soon as a sufficient number of letters are known, it is possible, by assembling two or more syllables to compose words :
   e.g. make the pupils read separately each of the syllables πα τέ ρας placed on the same line and group them, to read πατέρας



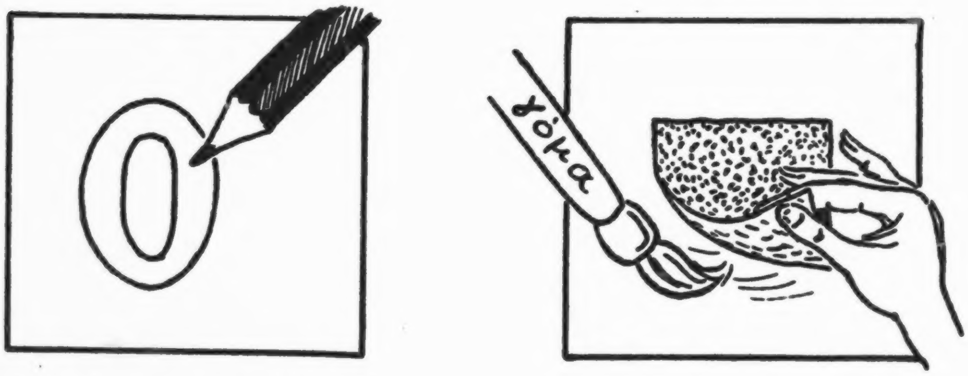
1. Ordinary letter.

2. Diphthong.



3. Letter which goes beyond the line.

4. Cutting out the cardboard.

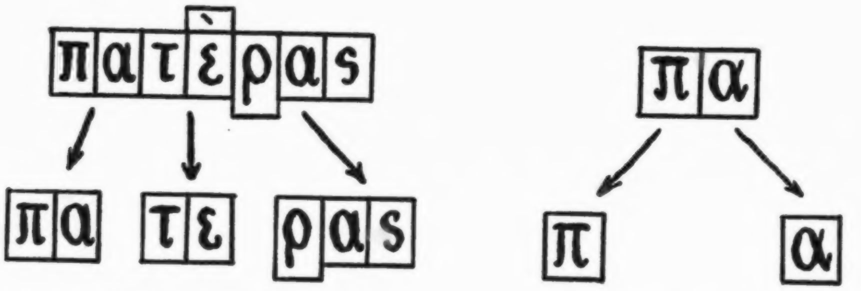


5. Sticking on or sketching the letter.

6. Sticking on the sandpaper.

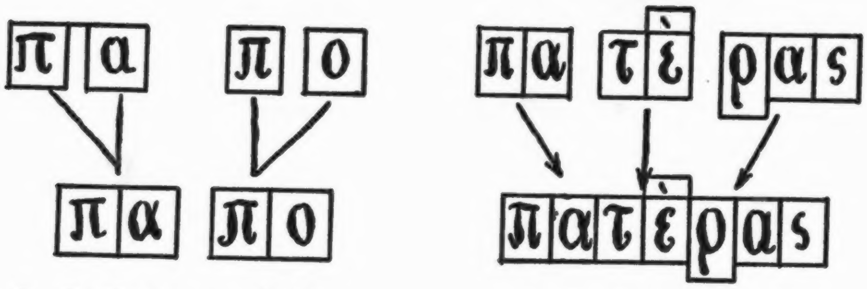
Fig. 32. *How to make the equipment.*

D. *Linking up with writing* (Figure 33/5)
At each stage the cardboard letter, syllable or word can easily be chalked up on the blackboard. The written letters should be made the same size as those on the cardboard, to show that the



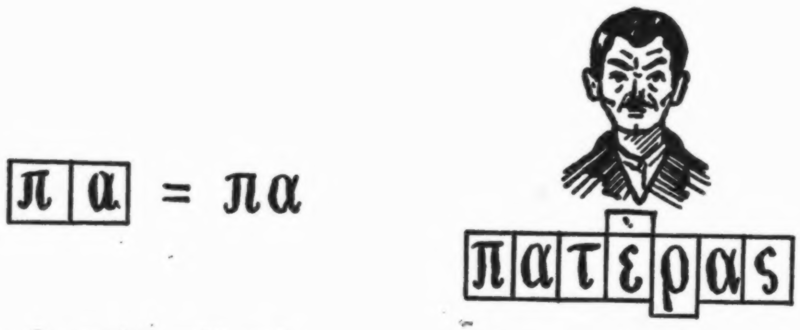
1. Analysis of a word in syllables.

2. Analysis of a syllable in letters.



3. Synthesis of syllables.

4. Synthesis of words.



5. Connection with writing.

6. Connection between picture and word.

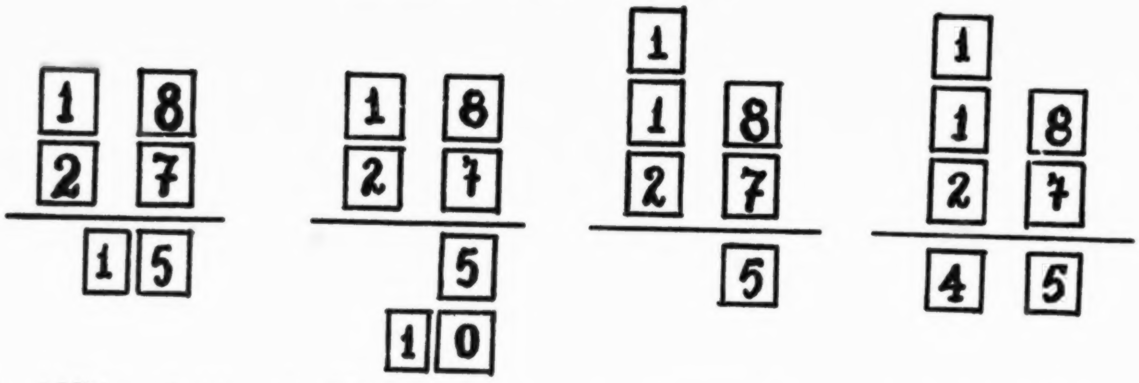
Figure 33. *Use of the Felt Board for reading.*

cardboard letters can be superimposed on the written ones. The exercises done with the cardboard letters should then be worked through with the written words.

III. Use for general and technical education

The felt board may be used to illustrate all types of subject. It takes some time however to prepare the pieces of cardboard and, as it is difficult to know where to keep large numbers of them, it is best to limit the system to cases when it gives better results than a blackboard. These cases are indicated below.

ADDITION WITH "CARRY OVER"



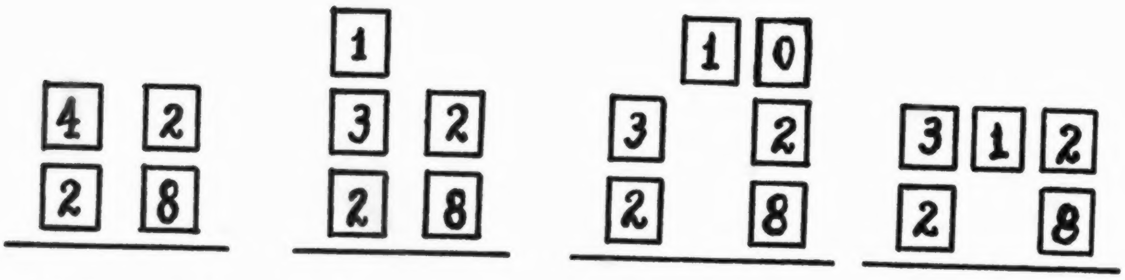
1. Addition of one column.

2. "Carry one" to next column.

3. Incorporating the one "carried over" in the next column.

4. The operation completed.

SUBTRACTION WITH "CARRY OVER"



5. You cannot take 8 from 2.

6. "Borrow one" from next column.

7. "Carry" to first column and on changing columns the one borrowed becomes ten.

8. Add the ten to the two, and the operation is possible.

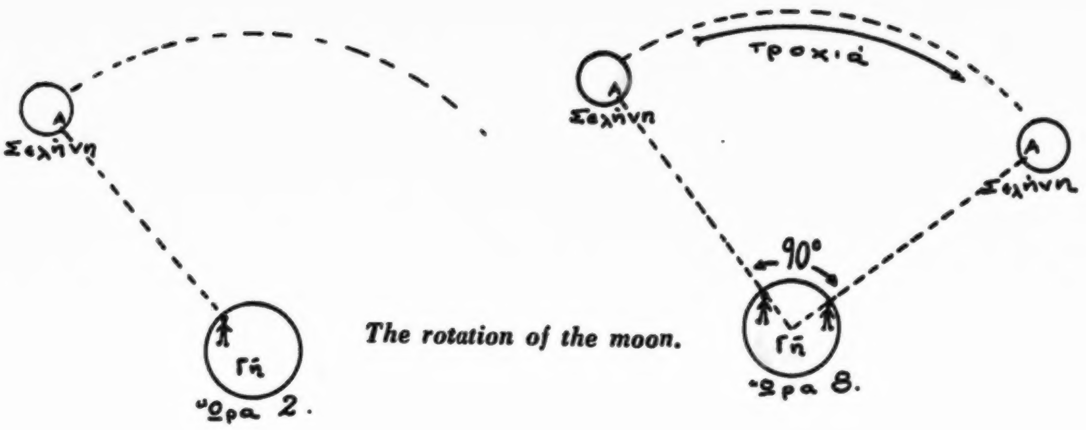
Figure 34. *Use of the felt board for the teaching of arithmetical operations.*

Simple arithmetic (Figure 34)

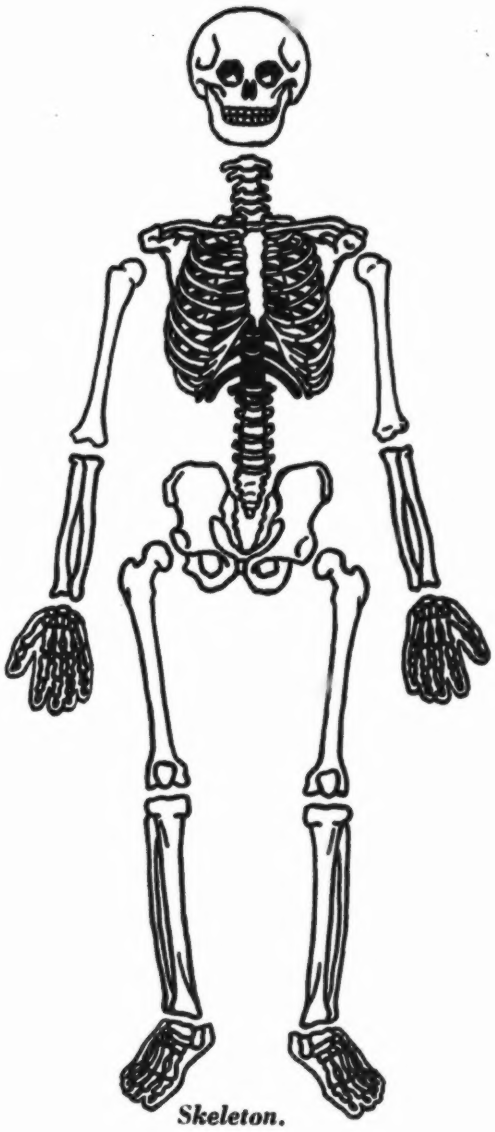
Cardboard figures make it easier to understand the four operations. In particular the principle of "carrying" a figure is made clear when it is in the form of a piece of cardboard which is actually moved (Figures 34/2 and 3).

Changing of a number into 10 equivalent units of a lower number in subtraction, for example (Fig. 34/6 and 7) can be taught in the same way.

The real value of a felt board is that the pupils have to move their hands, thereby fixing in their minds the corresponding arithmetical operation.


Σελήνη
Γῆ
Ὥρα 2
Σελήνη
Τροχιά
Σελήνη
90°
Γῆ
Ὥρα 8

The rotation of the moon.



Skeleton.

Figure 35. *Use of the felt board for general education.*

Science, history, geography (Figure 35)

The drawings required for certain lessons can be prepared in advance and stuck on to the felt as the lesson proceeds. The felt board is particularly useful when certain components in a picture have to be moved, for instance in explaining the rotation of the moon and why people on earth always see the same face of the moon. (All the teacher has to do when he moves the moon from position "a" to position "b" is to rotate the moon 90° on its axis drawing attention to this movement and explaining that the moon takes the same time to rotate on its axis as it does to move round the earth.)

Similarly, every teacher can build up a skeleton, about one metre high, drawing each part on a different piece of cardboard, so that it is movable.

List of parts :

1. head,
2. neck, thorax, collar bones and shoulder bones,
3. arms,
4. forearms (radius and cubitus in one),
5. wrists and hands,
6. pelvis,
7. thighs,
8. legs (tibia and fibula in one),
9. ankles and feet.

POSTERS

Everybody knows the tremendous part played by posters in publicity and it is not a bad thing for the teached to consider the technique of those he sees in his daily walk. They are generally excellent examples of applied psychology.

Posters have recently begun to play an important part in educating the public as regards accident prevention, hygiene, anti-drink campaigns, etc... In many countries they are also used for adult education.

1. CHARACTERISTICS OF A GOOD POSTER (Figure 36)

A good poster is :

— simple in its subject. It embodies one message at a time which may be affirmative or negative e.g.

"learn how to read"
"don't spit on the ground"

in placing this message before the public :

the drawing must not be complicated
the text must be short.

- easy to read from a distance i.e. it must be fairly large, well placed and have big print,
- it must catch the attention of chance passers whose minds are on other things. This is achieved by the technique and originality of the drawing, its colour, the size of the letters used, the skill with which the slogan as been selected and the place chosen for exhibiting the poster.

2. IMPORTANCE

A poster mainly makes its impact by repetition. You receive its message whenever you see it, that is to say 20 or perhaps 100 times. Little by little, however, the interest subsides and then the poster must be replaced by another with a similar message, conveyed differently. This means that a series of posters must be thought up for the same subject.

A poster is essentially an instrument of motivation and it exerts its influence by appealing to the inborn human interests. In publicity this is always the acse. In education, the poster may go further and also recall a number of well-known precepts, i.e. "wash your hands before meals", or "keep children away from the fire", or "now is the time to prune your trees", etc.

HOME-MADE POSTERS

Here again, most equipment should be supplied through official channels, but posters can also be made with the facilities available in any village. Admittedly, the teacher will not be able to organise a powerful motivation campaign because too many posters would be required but the help they will give him with his teaching is far from negligible.

I. SINGLE POSTERS

These should be mostly put up at the Centre and can be made with the help of a few volunteers.

1. *Mounting photographs, drawings, etc.*

A start should be made by obtaining as many existing posters as possible (Ministries, big public services, commercial firms, tourist agencies). In many cases the drawings on such posters can be cut out, repasted on a coloured background and given a new caption.

Photographs cut out of magazines can also be mounted but in this case the poster will be smaller.

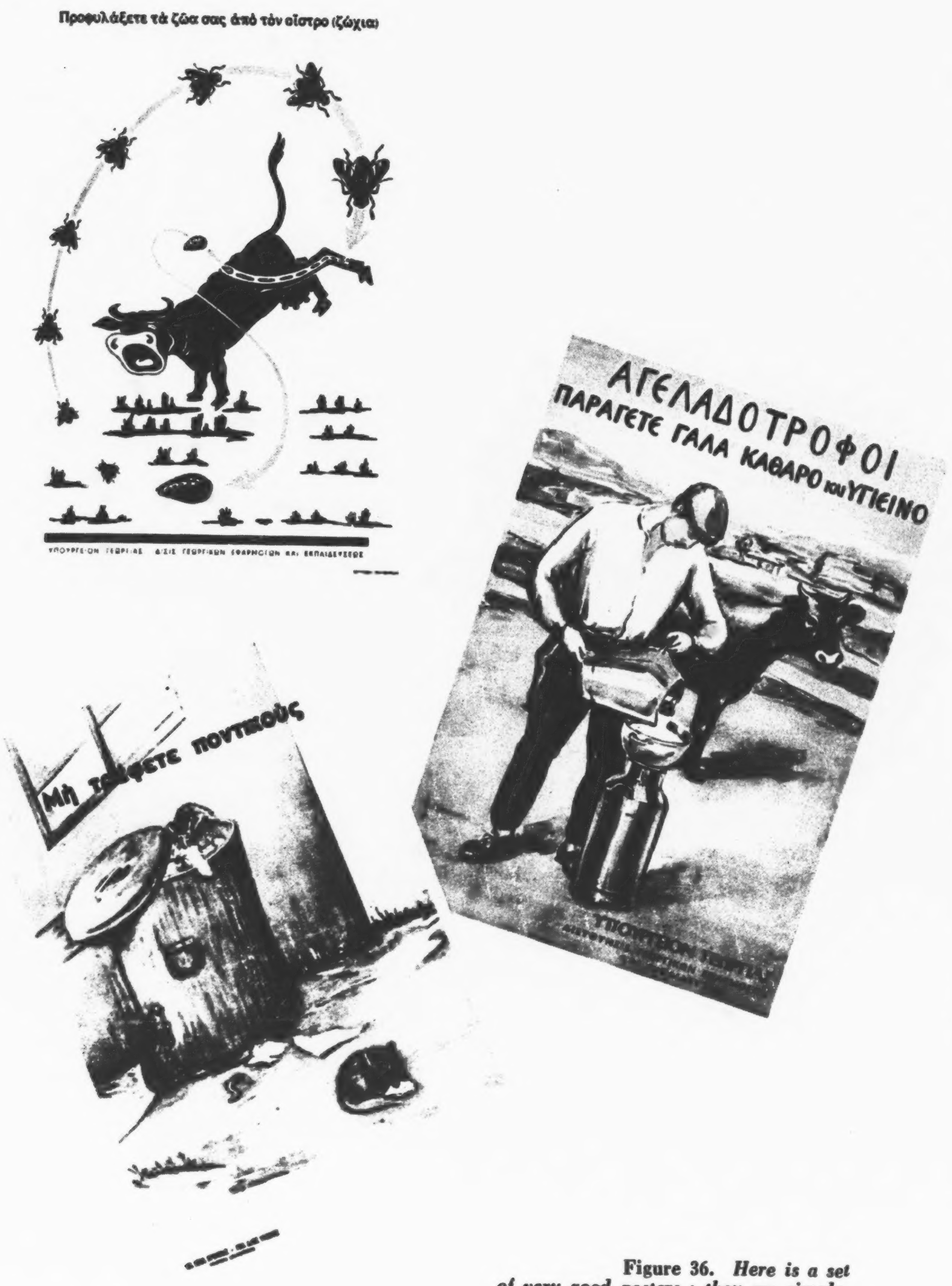
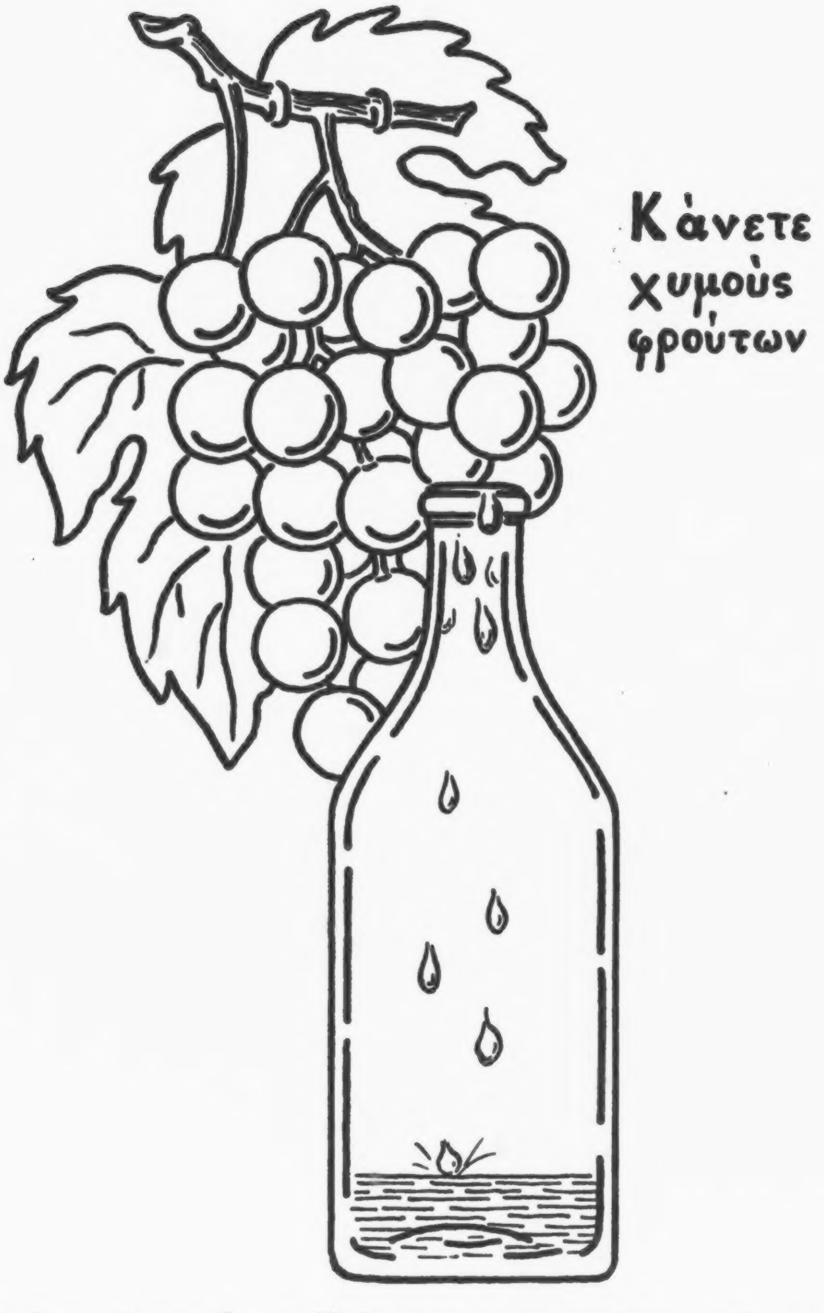
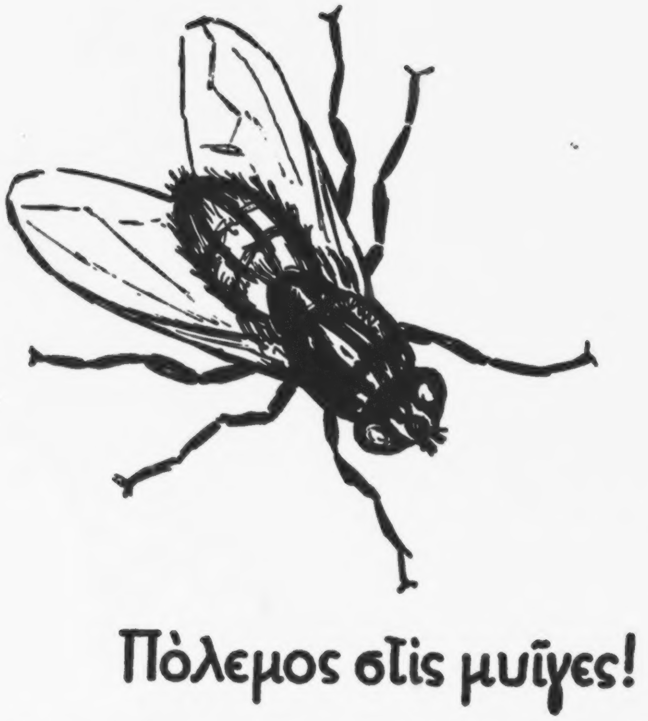

Προφυλάξετε τὰ ζῷα σας ἀπὸ τὸν οἶστρο (ζώχια)
ΥΠΟΥΡΓΕΙΟΝ ΓΕΩΡΓΙΑΣ
ΑΓΕΛΑΔΟΤΡΟΦΟΙ
ΠΑΡΑΓΕΤΕ ΓΑΛΑ ΚΑΘΑΡΟ και ΥΓΙΕΙΝΟ
ΥΠΟΥΡΓΕΙΟΝ ΓΕΩΡΓΙΑΣ
Μὴ τρέφετε ποντικούς

Figure 36. ***Here is a set of very good posters ; they are simple, striking, and with a very short text.***



White background, green leaves. Black grapes cut out one by one and pasted on. Red juice. Letters cut out from black and red paper (or painted).

Figure 37. *Poster made from a cutting taken from a tract by the Ministry of Agriculture.*


Πὸλεμος στὶς μυῖγες!

Poster is made by enlarging (cross-ruling method) the design of the brochure "The A.B.C. of Health" (page 13).
The designs on pages 23 and 26 may also be used for other posters the aim of which is to promote the struggle against mosquitoes and rats.

Figure 38. *A sketched poster.*

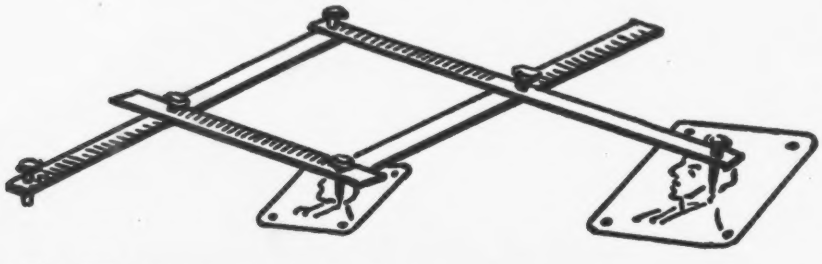


Figure 39. *The pantograph, a simple instrument which costs little, can be used to enlarge designs and plans.*

2. *Posters made of paper cutting* (Figure 37)

Sample posters can be made by pasting up shapes cut out of coloured paper. They do not show details but obtain their effect by broad masses of colour. Nor do they demand great powers of draftsmanship especially if it can suffice to copy drawings from books. Moreover, paper cuttings have clearer contours than paint, there is no risk of smudging and their artistic value may be considerable as many modern paintings have proved.

3. *Original posters* (Figure 38)

These are obviously the most difficult. Providing, however, that the drawing is kept simple, practically anybody can produce them,

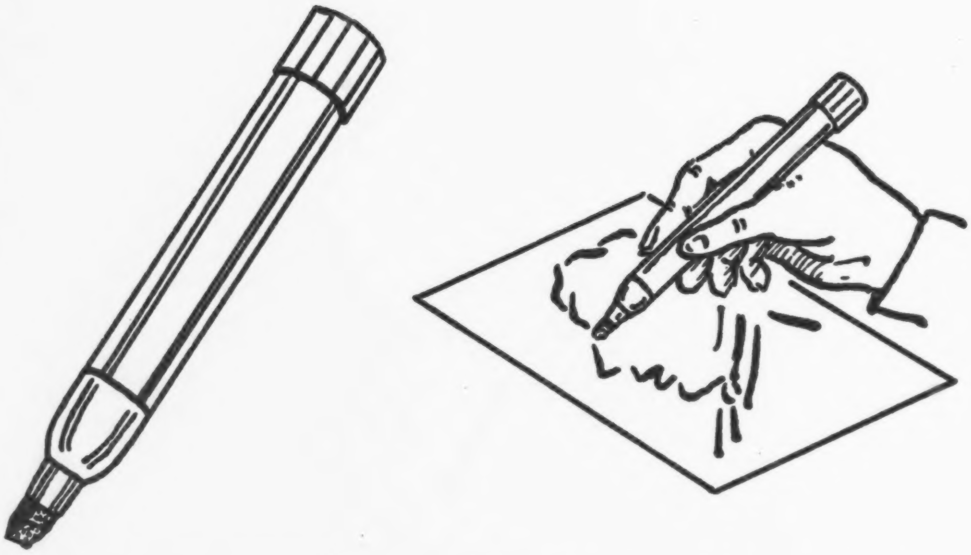


Figure 40. *The fountain pen with a felt tip is very useful for making designs and letters on a poster.*

especially as any minor defects are not visible from a distance. If a design is taken from a book or magazine, it can be enlarged by cross-ruling or, better still, with a pantograph (Figure 39). The sketching of the lines and letters of a poster will be much easier if a pen with a felt tip is used (Figure 40).

II. POSTERS REPRODUCED IN SEVERAL COPIES

However effective a single poster may be, its range is obviously limited. After his first successful attempts, the teacher is bound to want to improve his technique and reproduce his posters in several copies so as to put them up at different places in the village.

Let us now consider a number of simple processes for doing this.

1. *Stencilling*

Stencilling is easy and will produce from 10 to 20 copies of a drawing fairly quickly. The range of expression, though limited, is in most cases adequate for posters.

A stencil is a piece of cardboard with certain parts cut out. It is placed on a sheet of paper and a wash of colour is applied to the cardboard. When the stencil is removed the paper is left with a drawing which may represent a surface (Figure 41/1) or a series of lines (Figure 41/2).

Choice of drawing for reproduction

The drawing should be simple and reduced to a few essential surfaces or lines (Figure 41/3).

Preparing a stencil

The drawing should be made on cardboard. The parts to be cut out should be roughly shaded (Figure 41/4), making sure that no part of the surface which is not to be cut out gets torn off. Any surrounding part likely to be torn should be held in place by paper clips. The stencil should be cut with pointed scissors (Figure 41/5) or preferably a razor blade (cutting should be done on a sheet of glass).

The paint

This is a home-made distemper obtained from powdered paint and gum arabic dissolved in warm water (150 gms. of gum per litre of water). See that the powder is well ground and sifted and mix it carefully with the gum arabic. The paint should be liquid enough to cover the surface without running (Figure 41/6).

Brush and wire gauze

Use an old tooth or nail brush. The wire gauze can be mounted on a frame.

Method

Place the stencil firmly on the paper. Dip the tip of the brush in the distemper. Brush the colour well into the wire gauze. Continue to apply the colour until the paper is sufficiently and regularly covered (Figure 41/7).

Remove the wire gauze carefully making sure not to let it slip. Place it on the table and dry it at once first with a wet sponge and then with a rag, taking care not to damage it.

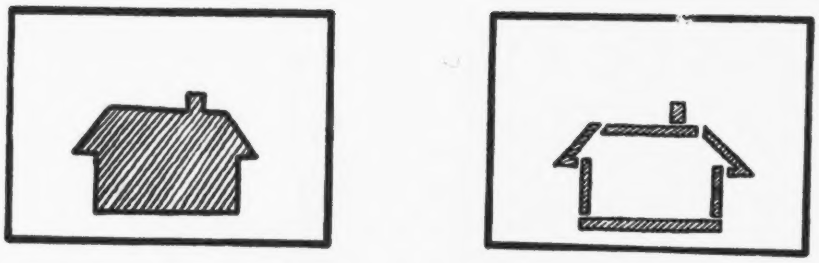
Touch up the poster with a brush and add any lines which may be required (Figure 41/8).

It is also possible to prepare stencils for reproducing posters in two colours (Figure 41/9). Make sure that the first colour which has been applied is properly dry before applying the second colour.

2. *Duplicators*

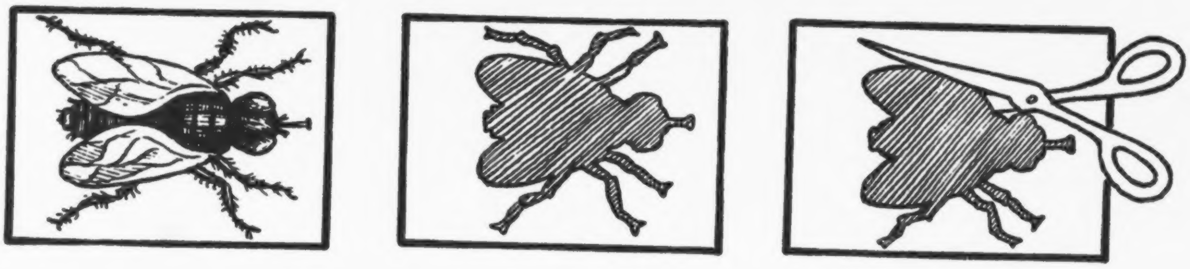
There are many duplicating appliances which are large enough to be suitable for running off posters, if they are not too big.

The type we used most was the "spirit" duplicator which worked with special kinds of carbon paper for printing in various colours. With this, we easily obtained about 60 copies, each colour taking us about an hour, including retouching. It should be noted that this technique is not suitable for reproducing large coloured surfaces which should be shaded in.



1. Stencil giving an effect of a silhouette.

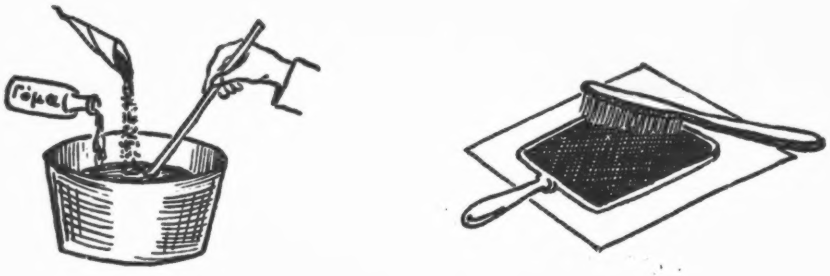
2. Stencil giving an effect of an outline drawing.



3. Original drawing.

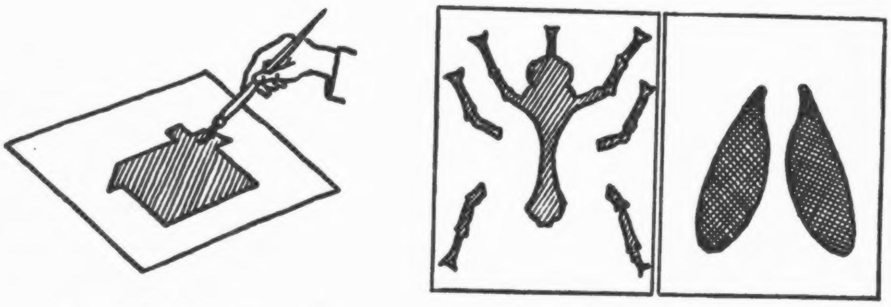
4. Simplified drawing (the parts to be cut out are shaded).

5. Cutting out the stencil.



6. Preparing the distemper.

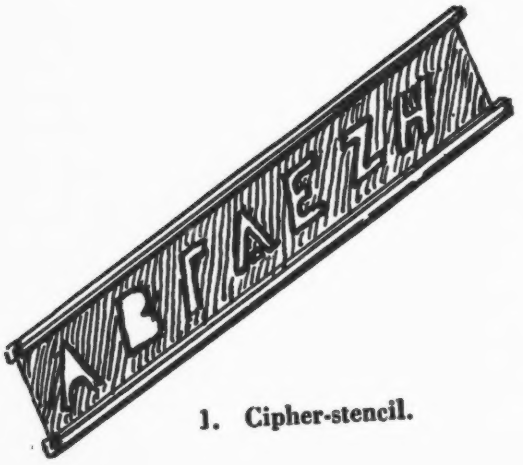
7. Applying the distemper.



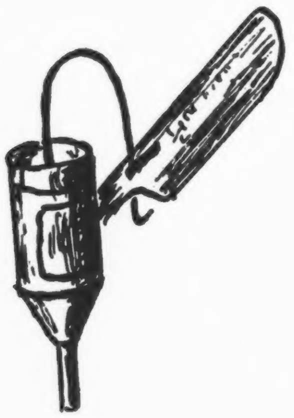
8. Touching up.

9. Stencil in two colours.

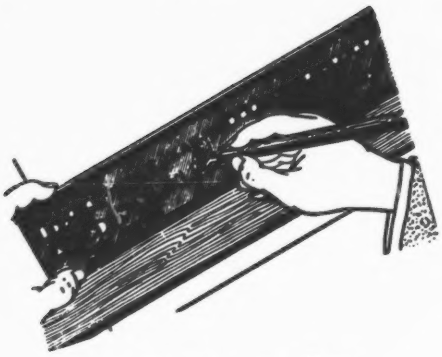
Figure 41. *The Stencil.*



1. Cipher-stencil.



2. Pen.



3. How to use them.

Figure 42. *Apparatus for tracing small letters.*

LETTERING

It is difficult to produce regular lettering for exhibition purposes or use with a felt board etc. and several processes can be used for this purpose.

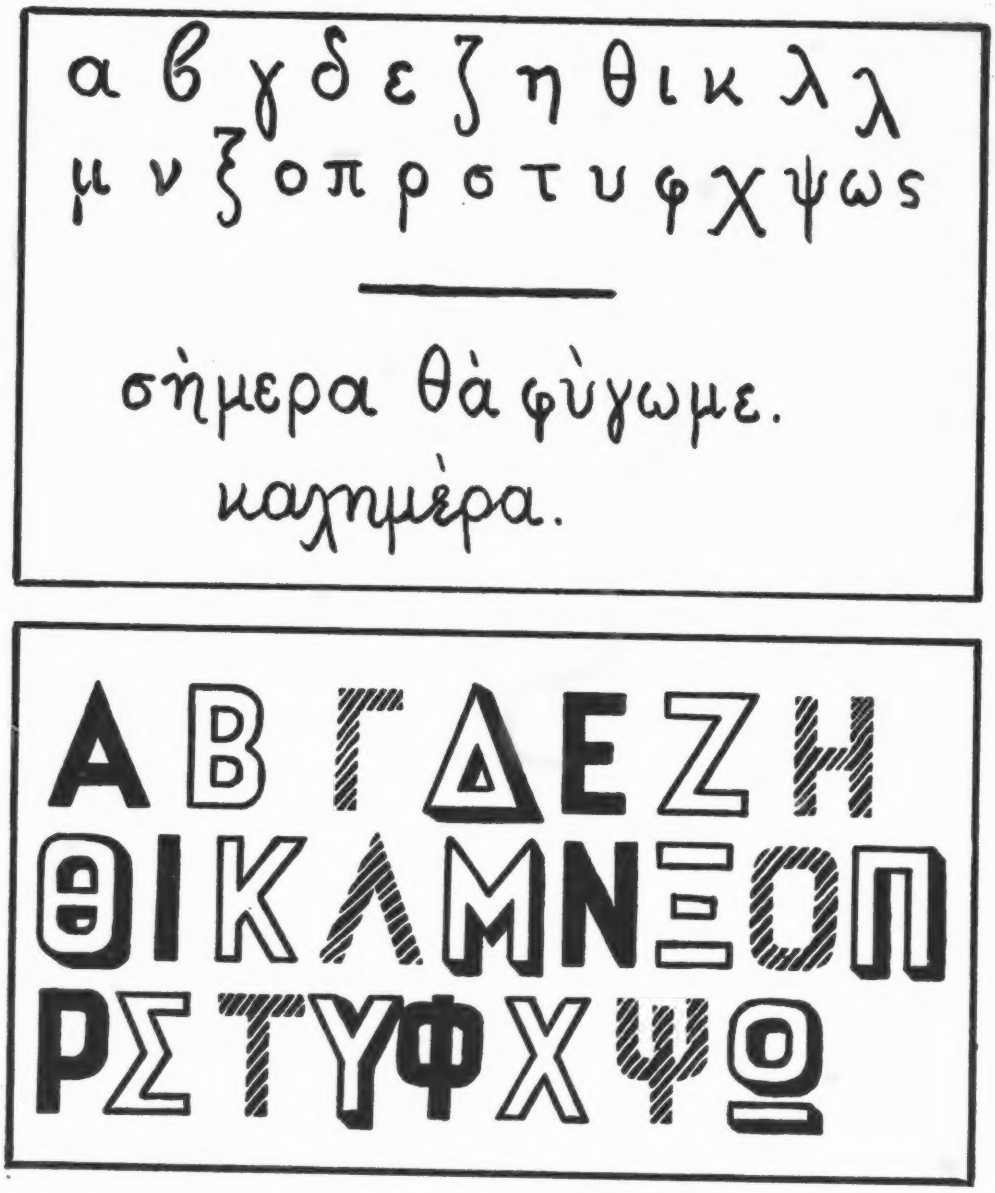

α β γ δ ε ζ η θ ι κ λ λ
μ ν ξ ο π ρ σ τ υ φ χ ψ ω ς
σὴμερα θὰ φὺγωμε.
καχημὲρα.
Α Β Γ Δ Ε Ζ Η
Θ Ι Κ Λ Μ Ν Ξ Ο Π
Ρ Σ Τ Υ Φ Χ Ψ Ω

Figure 43. *Different samples of letters.*

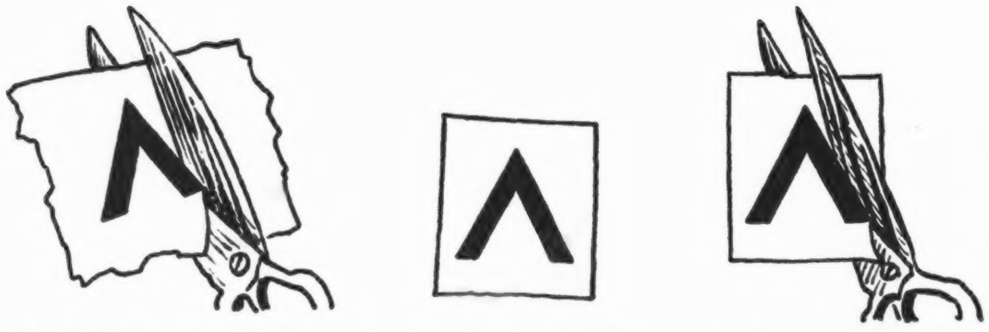
SMALL LETTERS

Special appliances are available on the market for these (Figure 42), but if none are available, the lettering can be done in script or capitals (Figure 43).

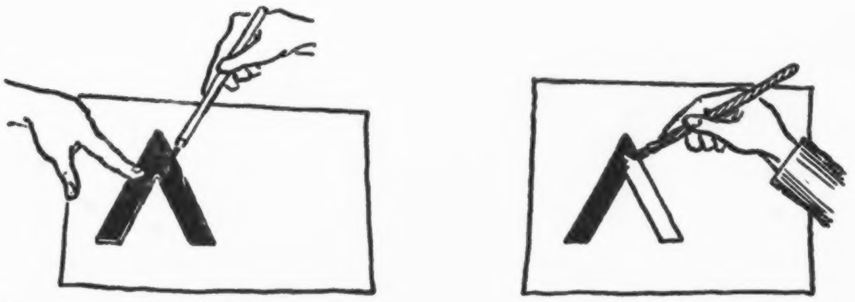
LARGER LETTERS

Sets of letters

It is possible to buy sets of cork or plastic letters which can be stuck or nailed up. Unfortunately, they are rather dear and do not exist for all non-latin alphabets.



1. Cutting out letters. 2. Paste them on fine cardboard. 3. Cut out the cardboard letters.



4. Trace the outline in pencil. 5. Fill in letters with ink.

Figure 44. *Letters cut out of newspapers.*

Letters cut out of newspapers (Figure 44)

Cut a complete alphabet out of newspaper headlines. Paste the letters on to thin cardboard and then trim the cardboard to shape, then use them as outlines for any lettering required. Go over the outlines with Indian ink or paint. In this way it is possible to make alphabets of different sizes and types of lettering.

Care should, however, be taken to choose simple lettering which is easy to read.

FILM STRIPS FOR PROJECTION

These are films in the form of flexible strips (24 × 36 mm) or glass slides (5 × 5 cm and above).

The advantage of the strips is that they are lighter and take up less room than the slides. On the other hand, they are fragile and the views must always be shown in the same order.

Both types are generally used, and both strips and 5×5 cm glass slides fit all projectors (it should be noted that there is a tendency to discontinue the use of the larger size which are really too big).

It should also be noted that film strips are very cheap and that projection equipment is also very inexpensive, easy to handle and wears well provided automatic devices are not used. For this reason, fixed projectors seem to be the most suitable type of audio-visual aid for our requirements, and are available to every Centre even when budgets are very limited.

WHERE FILM STRIPS CAN BE OBTAINED

- Commercial sources
  There are many commercial sources as filmstrips are now being made on practically all subjects, mostly in colour.
- Individual sources
  We shall see below what teachers or agricultural experts can do if they have a small camera or some sketching ability.

ADVANTAGES AND CHARACTERISTICS

The film strip is a powerful factor in education. Its luminous impact, its size and the richness of colour leave a considerable impression on the public mind which is heightened by the surrounding darkness.

Being fixed, however, it is not very life-like and is therefore not very suitable for motivation purposes. But as it can be kept on the screen as long as required it is perfectly suitable for information and teaching purposes, although its use in technical training is limited, as it cannot show gestures.

It should be noted that a public used to cinema shows is easily bored by film strips.

HOW TO USE STRIPS

The film strip should always be accompanied by a commentary by the teacher. Films supplied by commercial sources have captions and are often accompanied by a brochure.

The teacher should read the brochure and study the film once or twice *before* use, either by projecting it or holding it up to the light.

FILM STRIPS MADE FROM PHOTOGRAPHS

Making a film strip for the Centre is not more difficult than photographing the family or friends. No more than average talent, care and thought are required. If the teacher is not himself a specialist in the matter he is bound to know some competent amateur whose interest he can enlist in adult education.

I. A FEW TECHNICAL POINTS

Here are a few hints which should help you to produce a satisfactory film strip.

Type of Film

Black and white : Ask for *reversible* film. This is developed by the manufacturer and comes back in the form of a positive image ready for projection.

Colour : Preference should be given to colour film. Any reversible colour film is suitable. However, the most rapid type of black and white film should be used if photographing has to be done not only in the open, but also indoors in a poor light.

How to take photographs :

Three things are essential :

- *make sure exposure is correct.* Reversible film is very sensitive to incorrect exposure.
- Take care to *centre* the object properly, i.e. get it in the middle of the picture. The reason is that as no enlargement will be made, uninteresting details, an empty foreground or useless objects around the sides cannot be cut out subsequently.
- *All photos should be taken the same way up,* i.e. with the longer side of the camera parallel to the ground.

II. USE

The laboratory generally returns black and white film uncut. It can be used as it stands but any bad photographs (and there are always some) will be a nuisance. The best solution, although the most expensive, is to mount each view on 5 × 5 cm glass slides obtainable from any photographer.

Colour films are always delivered by the manufacture in cardboard mountings.

III. MAKING FILMS

The usual three types of film can be made, i.e. *topical, educative* and *motivation* films. It is best to begin with the first type, it being the easiest.

Topical film strips (Figure 45)

They are comparable to the news film at the cinema. It is easy to take about 20 photographs during the inauguration of a Centre, the arrival of a visitor or a festival and project them subsequently. I know from personal experience how popular this kind of film is and the pleasure it gives to people who recognize themselves or their friends on the screen.

If the film is about a visit to a factory or some place of historic interest, the teacher should not only photograph the participants but also the things they came to see (this means taking details as well as general photographs and combining education with entertainment).

Educational film strips

The teachers should not hesitate to make a few educational film strips *provided there is justification for them*, i.e. provided they do not repeat things which have already been done and done better by professionals.

For example, a series of films can be made on experiments with crops grown with and without fertilizer. The crops can be photographed at each stage of their growth. There are plenty of other subjects which are worth filming. New techniques in agriculture, pruning, the campaign against mosquitoes, handicraft industries, etc. Such educational film strips can quite simply be made when experts visit the area to organise demonstrations.

The advantage is that the photographs will show what the pupils have already seen and will reproduce exactly the experiments which they themselves have carried out.

The projection of such films provides an excellent opportunity to revise what has been learned, to focus attention on details which may have been missed and to draw a few conclusions.

Motivation strips (Figure 46)

Giving people new motives, new reasons for embarking on activities advocated as beneficial is a difficult art for which film strips are not the best medium, as we have already said, but the following example i.e. "Costas learns to write" proves that it is possible to produce a film strip of this type.

The motivation film strip is bound to have a scenario because the moral of the story must be clear to everybody. Thinking out a story of this kind and then translating it into pictures is a fascinating task but must be reserved for photographers who know what they are doing.

If a locally produced film strip is to be really successful it must have a plan and each part of the scenario must be dealt with in *several* photographs showing the different phases of an operation or giving general and detailed views of some machinery, etc. This will be quite clear from the study of the sections of film strips in the following pages.

FILM STRIPS BASED ON DRAWINGS

1. LARGE VIEWS

The main advantage of projectors which can take large films is that they enable the teacher to supplement his collections by drawing certain views himself. For example, a technical sketch on a 9 × 9 plate is not very difficult to make. Drawings can be made in ordinary pencil directly on the opaque glass plates sold by photographers. It is even possible to draw on ordinary glass by using special ink and paint. Cellophane and translucent plastic can also be used provided they are mounted on glass.

It is also possible to type on the last two materials, thus ensuring regular lettering.

2. 24 × 36 STRIPS

Making original drawings on 24 × 36 film is difficult and calls for the abilities of a miniaturist. The slightest mistake, the slightest tremble in a penstroke, is considerably enlarged and makes for unpleasant surprises when the film is projected. In technical drawing maximum precision is essential, but other types of drawing should be done very freely and even fancifully (in the style of the caricaturists).

This problem has been studied at length by McLaren in an interesting little book called "The Healthy Village" (No. V in UNESCO's Basic Education series) but we cannot hope to obtain the same results as he did because he was working with professional artists.

After experiment, this is what we were able to do :

B.V.: Broad view. Panorama. Group of houses.
G.V.: General view. House. Several people.
M.V.: Medium view. One or two people shown in full length.
C.V.: Close view. On or two people shown down to the waist.
C.U.: Close-up. Face, hands, or object taking up the whole of the screen.

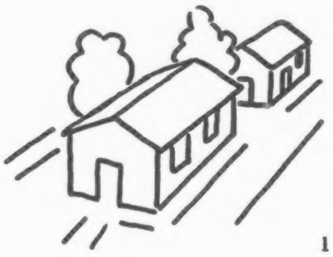
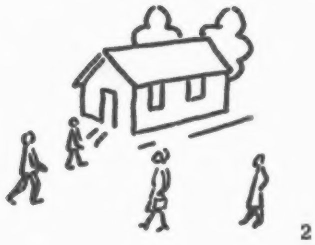
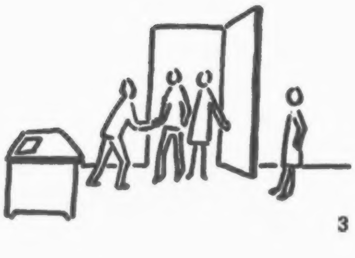
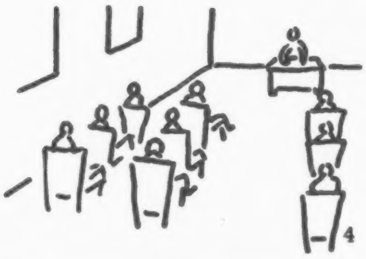
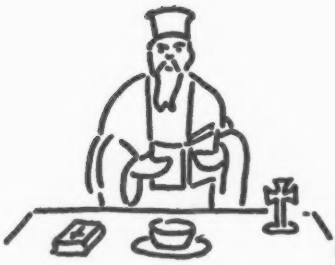
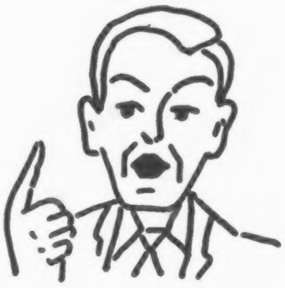
Type of photo	*Subject*	
B.V.	The Centre seen from high ground.	
G.V.	Arrival of the public.	
M.V.	The teacher is shown welcoming three or four people.	
G.V.	View of the hall (indoor photograph taken in daylight) 1/10 to 1/5 of a second, full aperture.	

Figure 45. *Topical film strip: Inauguration of an Adult Centre.*



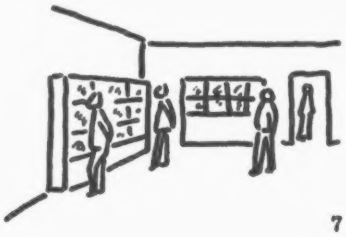
5

C.V. The priest pronounces a blessing.



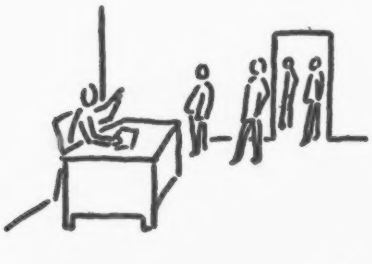
6

C.U. Speech by the Chairman.



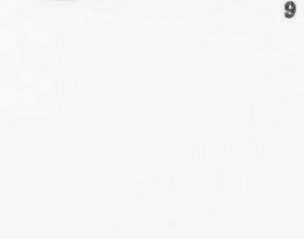
7

G.V. Visit to other rooms.



8

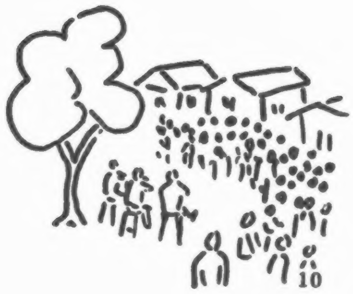
G.V. Visit to other rooms.



9

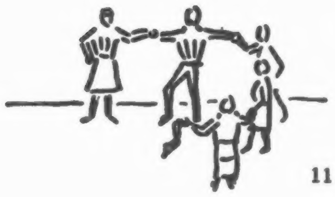
C.U. Details of some collections.

B.V. Open-air fête.



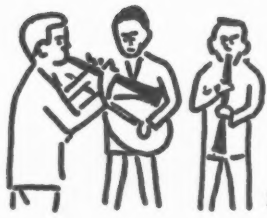
10

G.V. Dancing.



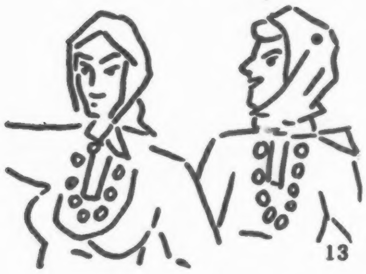
11

M.V. Musicians.



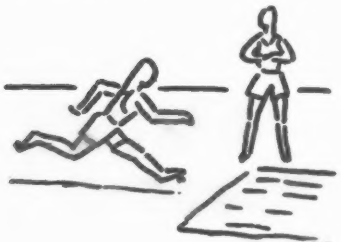
12

C.U. Faces of dancers.



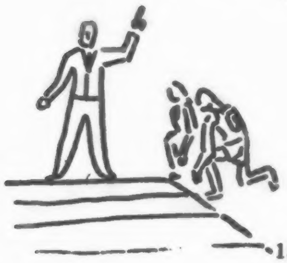
13

B.V. Sports meeting.



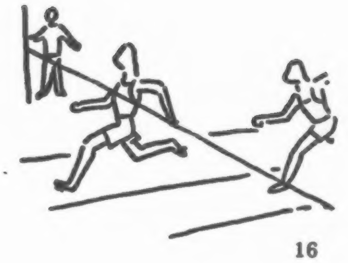
14

G.V. Start of a race.



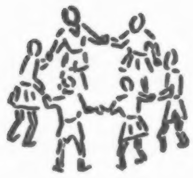
15

M.V. The winning post.



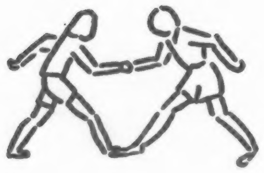
16

G.V. Children playing.



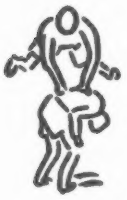
17

M.V. Details of the game.

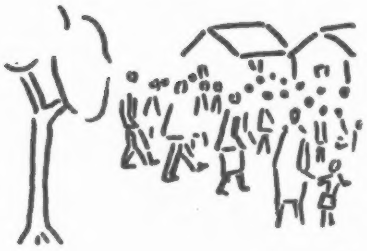


18

M.V. Details of the game.

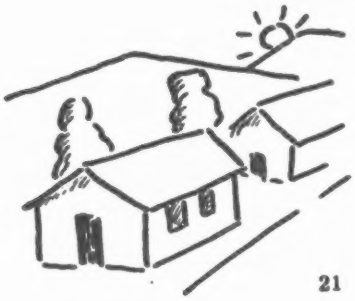


G.V. End of the festival.



20

B.V. The Centre in the evening.



21

Motivation strip made by the Centre for Research on Adult Education.

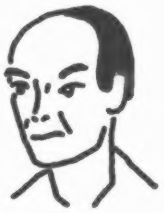
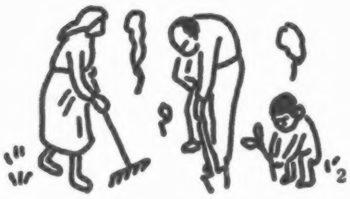
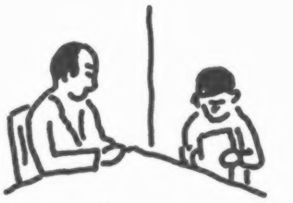
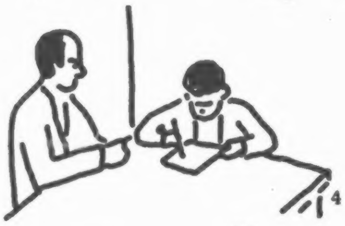
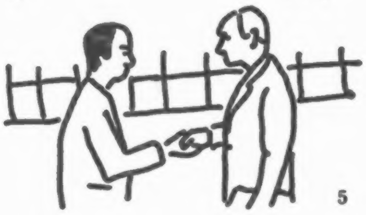
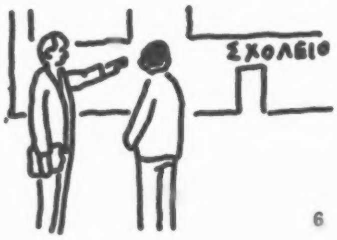
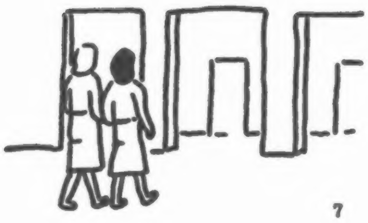
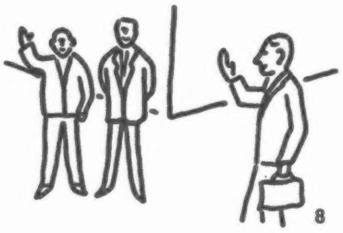
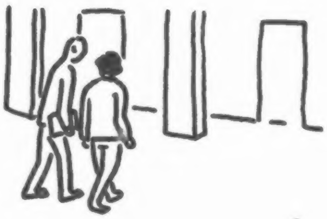
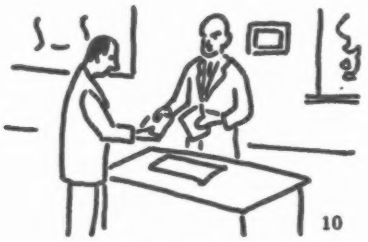
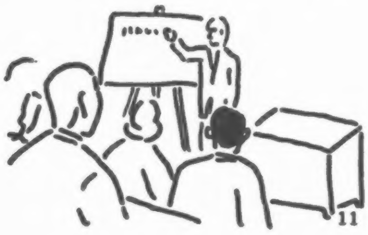
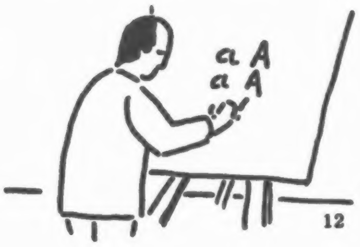
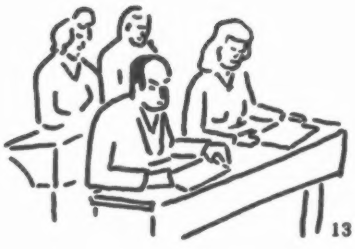
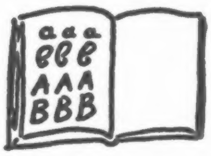
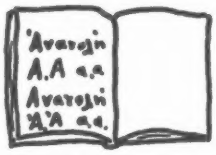
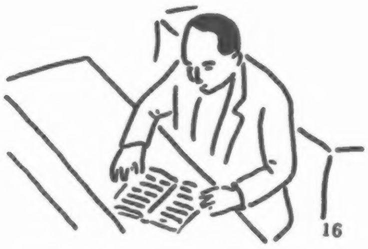
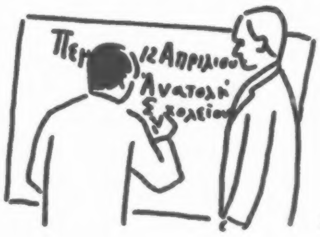
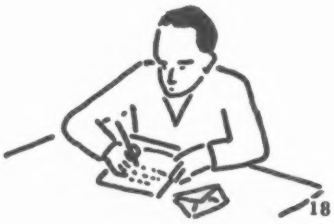
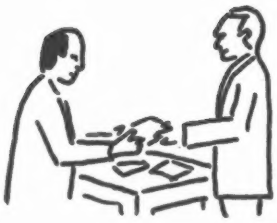
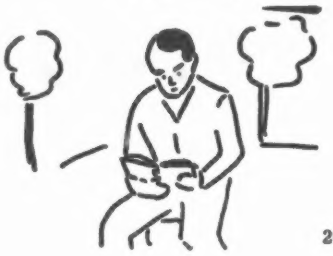
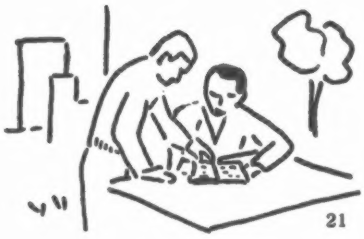
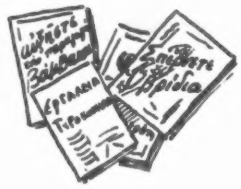
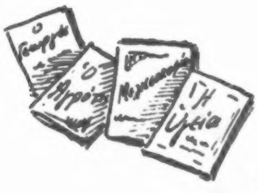
Type of photo	*Subject*		*Brief comments*
½ C.U.	Head of Costas.	 1	The story we are going to tell is that of an ordinary man called Costas.
M.V.	The family at work in the garden.	 2	Costas lives with his wife and son in a village. They form a happy family. They like working together in their garden.
C.V.	Costas and his son. The latter reads a letter to him.	 3	One day Costas receives a letter from his son who is abroad. Unfortunately Costas cannot read. His younger son John has to read the letter to him.
C.V.	Costas and his son. Costas dictates a letter to his son.	 4	To answer his eldest son Costas is obliged to dictate to John what he wishes to say to his eldest son.
M.V.	Costas and the teacher. They shake hands.	 5	Shortly afterwards the teacher is walking past Costas's house and stops to pass the time of day.
M.V.	The teacher shows Costas the school and invites him for a visit.	 6	He tells him that an adult class has begun at the school and asks him if he would not like to come. Costas answers that he is too old and could never learn to read.

Figure 46. *Sequences of a sound film strip: Costas learns to write.*

M.V.	Two women join the adult class.	 7	The teacher explains to Costas that this adult class is precisely designed for people of Costas's age. As he is speaking the two women pass them.
M.V.	One of Costas's friends passes and greets him.	 8	Costas's friend Anthony arrives. They greet each other warmly. Anthony is older than Costas but he does not want to miss this opportunity of learning to read.
M.V.	Costas is seen entering the Centre with the teacher.	 9	So Costas also makes up his mind and goes with the teacher. "I can always try" he says "and perhaps I shall manage to read my son's letters".
C.V.	The teacher gives Costas a manual and an exercise book.	 10	The teacher gives Costas a manual and an exercise book. Costas is now ready for the great adventure.
G.V.	The class (back view of pupils, front view of teacher).	 11	In the first lesson, the teacher talks about the letters of the alphabet and writes the easiest ones on the board.
C.V.	Costas is at the blackboard, writing.	 12	Then Costas goes to the blackboard. Hesitantly, he begins to write letter A. It is not very well formed but soon he succeeds in writing it correctly.

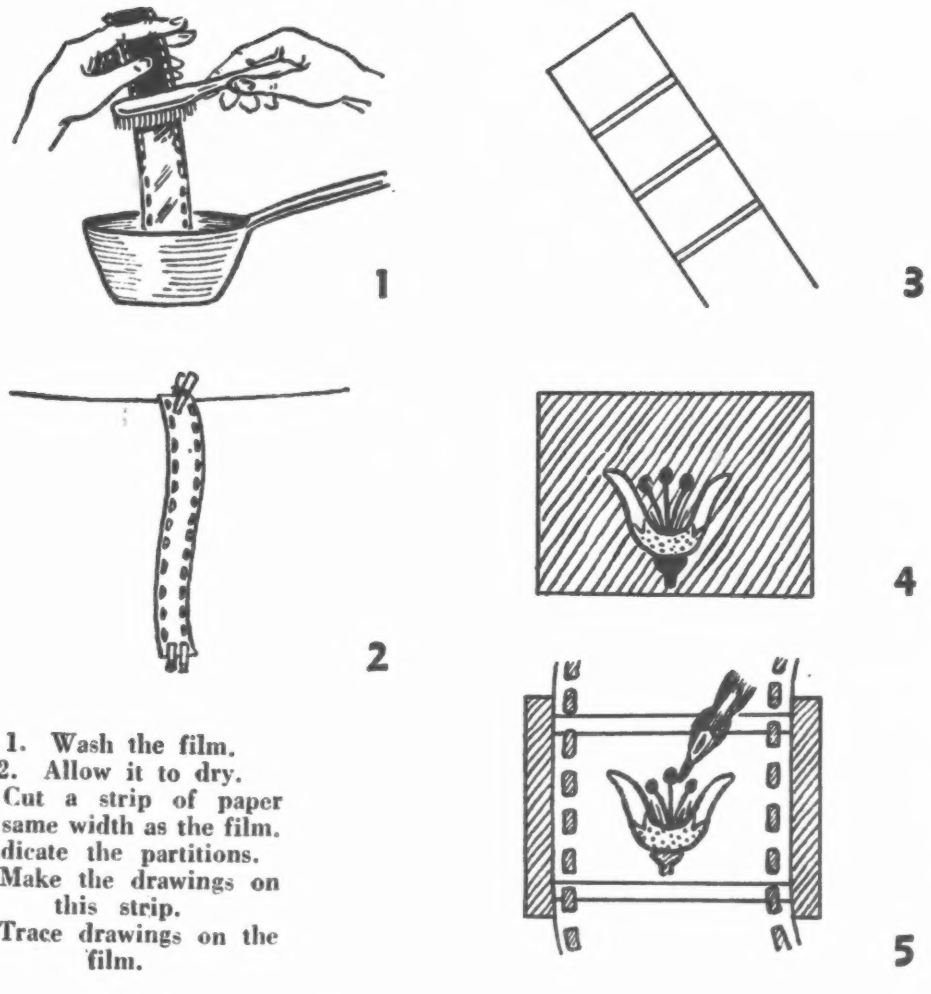
C.V.	Costas, side by side, with the other pupils, reading.	 13	Costas tries to find the letters and words he knows in a book.
C.U.	View of an exercise book with Costas's first attempts to write.	 14	A few weeks later Costas looks at his old exercise books. He remembers how hard it was to write at the beginning.
C.U.	View of an exercise book showing how Costas writes after a few weeks.	 15	When he compares it with his new exercise book he sees the progress he has made in a short lapse of time.
C.V.	Costas is seen sitting in the classroom, reading a little book.	 16	After a few months' schooling Costas can now read the history of his country and does so with great pleasure.
M.V.	Costas is seen at the blackboard writing a sentence. The teacher is next to him.	 17	He can also write out a dictation on the blackboard.
M.V.	Costas is seen sitting in his garden writing.	 18	An exciting day for Costas. This is the first time he is able to write to his eldest son, unaided.

M.V.	**In class the teacher is shown lending books to Costas.**	 19	**The school year is finished and the school is about to close. Costas borrows books from the teacher so as not to forget what he has learned.**
C.V.	**Costas is seen in his garden reading.**	 20	**When he comes back from his work Costas has taken to sitting in his garden and reading.**
C.V.	**Costas is in his garden. A friend is helping him to read.**	 21	**From time to time he still has some difficulties. Then he calls in his neighbour who is delighted to help him.**
C.U.	**Adult reading book.**	 22	**Costas will learn a lot of things from books, i.e. how to cultivate his land more effectively, the best tools to use, etc.**
C.U.	**Adult reading book.**	 23	**He will also find hints on how to use a tractor, how to make good wine, how to protect his children from disease and a lot of other information which will enable him to live more fully.**

FILM STRIPS DRAWN IN INDIAN INK

How to prepare a base

Take a strip of ordinary 24 × 36 film, developed or unused. Remove the gelatine (sensitive layer) by washing it in hot water with a nail brush (Figure 47/1). Leave it to dry after removing excess water with the fingers or a damp sponge (Figure 47/2).



1. Wash the film.
2. Allow it to dry.
3. Cut a strip of paper the same width as the film. Indicate the partitions.
4. Make the drawings on this strip.
5. Trace drawings on the film.

Figure 47. *Film strip made from drawings.*

How to do the drawing

This is very easy with Indian ink or any high-grade coloured ink. To avoid mistakes and corrections the subject should be prepared beforehand on a strip of paper of identical size. Start by indicating the partitions, then make the drawings and finally trace everything on to the film (Figure 47/3, 4 and 5).

As transparent film gets dirty and scratched very easily it should be laid on clean paper and handled with cotton gloves or at least should be protected, while the tracing is being done, by a piece of clean blotting paper.

If the ink does not take well, it is because the film is not clean enough and it should therefore be cleaned with a piece of cotton wool dipped in methylated spirits and left to dry for a minute or two.

A word of warning. Drawings of this kind should be protected from contacts or they will soon lose their attractive appearance.

Finally, it should be borne in mind that, although it is difficult to make an entire film strip out of drawings this process is very useful where a photographic film strip needs supplementing by diagrams.

SOUND FILM STRIPS

This is a film strip accompanied by a commentary and perhaps music from a tape-recorder.

To make the recording, arrange the views in the order in which they will be projected then write a brief text for each of them. Each picture should remain from 5 to 15 seconds on the screen according to the public and the subject, and a good rule is to make the commentaries half as long, i.e. from 2 1/2 seconds to 7 1/2 seconds.

It is an advantage to have the recording made by three people, the first acting as sound engineer to regulate the tape-recorder, the second acting as commentator and the third holding a watch with a second hand to tell the commentator when to begin. To do this correctly, the third person gently knocks two rulers together in front of the microphone whenever the time allotted for each picture is up. This sound signal which is reproduced when the strip is projected tells the operator that he must immediately change the picture. The commentator does not begin reading his text until two or three seconds after the signal. He should speak in an ordinary conversational tone but avoid colloquialisms.

If the tape-recorder is suitably equipped it is possible to add a musical recording to the commentary from a record or radio. To obtain the correct mixture of sound and speech, the manufacturer's directions should be followed.

Although a sound filmstrip is obviously not as good as a moving film, it can make a reasonably satisfactory substitute should the need arise, and is quite suitable to accompany a scenario. For actual teaching purposes, a direct commentary by a good teacher is often preferable as the teacher can adapt himself more easily to the requirements of his audience.

MOVING FILMS

The moving film is one of the most powerful teaching aids in existence. It is suitable not only for motivation, but for information and educational purposes and its universal appeal is such that it can greatly stimulate the activities of the Centre.

There is no doubt that the systematic use of films for education is as yet in its infancy and we can but guess at its immense potentialities. Let us consider some of the different varieties.

I. VALUE AND ACTION OF MOVING FILMS

The very powerful impact which a film can make on an audience is the result of three separate but converging factors, i.e. pictures, words and music.

Let us consider the combined effect of these factors in a darkened cinema. A good producer can create an impression of youth, joy and happiness by showing a smiling young actress standing against the light, with a soft breeze gently playing in her blonde hair; her clothes are gay and simple, her step light and tripping, there is a hint of spring in the air, the young leaves are a tender green against the blue sky, the music is light and airy and the voice heard colours and transforms everyday words and also seems to convey the impression of laughter reminding us of what we have all experienced at happy moments.

Such is the inimitable art of the film. One day it will have to be used for all types of education.

The motivation film

Because of this power the film is an excellent motivation medium. The spectator tends to identify himself with the hero, experience his sorrows and joys, share his hopes and imitate him. A good film can inspire courage and human sympathy and can arouse feelings that have been deadened by the dull routine of life. It does this more easily than any other forms of art because it offers a perfect example of a popular art.

The use of the cinema for educational motivation is still so new that very few films exist as yet for this purpose, particularly as their action, to be really effective, should be set in the environment of the community they are designed to influence and their actors should belong to the same ethnic group as the spectators.

Although they do not fulfil all these conditions, a number of ordinary films can be used for motivation and their effectiveness will be increased if they are appropriately introduced. The introduction must not, however, deprive the film of its interest (which would be the case if, for example, the plot were to be revealed beforehand).

Finally, although a motivation film can inspire people with an urge to do something, that is not sufficient to make them do it. The teacher should therefore strike while the iron is hot and take advantage of the interest the film has aroused, to organise a small discussion group and take the preliminary steps towards the objective for which the film was shown.

The information film

This presents no difficulty. Whether the film deals with the life of a Greek fisherman, a Canadian farmer or an Arab village, the pictures and commentary can speak for themselves. But films of this kind, unless they are extremely well produced, are apt to be monotonous and must not be given too great a place in the programmes, despite the fact that they are easy to obtain.

The educational film

A film is termed educational when the subject is directly connected with a particular lesson. It is designed to illustrate by pictures drawn from real life what has already been taught.

II. Use of films

Films can be used either during the class or during general cinematographic sessions, on specified days if possible.

Classroom projection gives better results, but this presupposes that each Centre will have a projector and that films which correspond exactly to the subjects taught will be available.

It is obviously easier to organise a film show each week on one particular evening, or when the cinema van sent out by the Central Service pays its visit. These shows which are designed for a wider public are bound to be less educational in character. They not only have to instruct, they must also entertain. Their programme will therefore include:

a general documentary film (on some foreign country, for example);
an educational film linked up with the teaching programme;
one or two entertainment films (16 mm reductions of big commercial films, sports documentaries, etc.).

If the film is used in the classroom the following rules ought to be observed:

- — the film should always be run off before being shown to the pupils;
- — if the subject of the film is unusual the scenario should be summarised before projection;
- — any technical terms and difficult words in the commentary should be explained;
- —after the show, the spectators should be asked questions and a discussion should be started;
- — all the additional trimming (use of other audio-visual media, experiments, summaries of the main points of the film, etc.) should be carefully rehearsed.

III. SILENT FILMS OR FILMS WITH A COMMENTARY IN SOME FOREIGN LANGUAGE

For adult education, the shortage of films has made it necessary to rely on strips with a sound track in a foreign language.

When the subject of these films is simple, they can be shown as they are, provided they are given a brief introduction.

Sound commentary

This is not a good system and it is preferable to arrange for a microphone commentary. The original sound is cut off and the teacher talks into the microphone as the film proceeds. This assumes, of course, that he knows the film sufficiently well and has taken a few notes to recall the main points of what he has to say. There is no advantage in writing out the full text of a commentary, as it is very difficult for the teacher to read during the projection. If he does not keep an eye on the screen there may be a gap between what he says and what is showing on the screen.

With a little experience, it is quite possible to improvise from a plan which has been learnt by heart. This has the advantage of enabling the teacher to rectify any misunderstandings on the part of the spectators or emphasize things which may be missed. For several months I saw a young teacher working in this way, and I can definitely state that what he said was more valuable — particularly because he was very adroit in interpreting the reactions of the public — than any standard commentary.

The only disadvantage is that it cuts out the music of the film and the spell of silence which suddenly arises when the teacher stops speaking can be somewhat disturbing.

Comments

It should be remembered that silent films are projected at 16 images per second and sound films (whether or not the sound is used) at 24 images per second.

In most projectors the sound is cut off automatically by switching over to the microphone. If this is not the case, i.e. if both the original sound track and the teacher's commentary would be heard, the film should simply be shown as if it were silent.

Commentary by tape-recorder

This process, which at first sight seems very simple, is disappointing owing to the impossibility of running a projector and a tape-recorder at absolutely the same speed. Towards the end of a film, picture and text cease to coincide. It is possible to meet this difficulty by buying a device which synchronises the tape-recorder and the projector but unfortunately this equipment is fairly expensive, lengthens the time required to prepare the show, and increases the risk of a breakdown.

In any event the recording of a film commentary is generally beyond the ability of a non-specialist and it is better not to try. For those who still wish to make the attempt it may be said that the procedure is the same as that adopted for providing a film strip with a sound track but that the sound signal (two rulers knocked against one another) indicating a switch from one picture to another, is of course omitted.

TAPE-RECORDERS

Tape-recorders are undoubtedly a valuable instrument in adult education. They are still, however, too expensive to be widely used and require a central organisation for production and servicing. But a service of this kind, even if it consisted of a single person able to make sound film strips (i.e. take the photographs and write and record a commentary) would considerably enrich the quality of the teaching in our Centres.

The Epirus scheme to record talks by different kinds of technicians and send the recordings to Centres equipped with tape-recorders is also worth considering. It might even be possible to conceive a kind of "people's university" functioning on these lines.

Left to his own devices a teacher can still make use of a tape-recorder in the following ways:

USE OF TAPE-RECORDERS IN TEACHING

1. Music, dancing, etc. Same use as the pick-up.
2. Supplying a sound track for film strips or films in foreign languages.
3. Language teaching.
   The tape-recorder is the best instrument for learning foreign languages. There should be gaps in the recording to enable the pupils to repeat what they have heard, individually or collectively (without recording what they say).
4. Local recordings.
   Adults are just as happy to hear themselves talking, reciting or singing as they are to see themselves on photos.
5. Motivation campaign.
   In the course of these campaigns a tape with slogans, music and explanations will supply a useful sound background in a hall, a market or any other meeting place (for example, a tape-recorder was installed in the waiting room of a clinic,

interspersed with local music, to broadcast hints on hygiene, and it commented on a number of health posters exhibited in the clinic. These texts were repeated at intervals to give the patients a chance to hear them two or three times before they reached the doctor).

RADIO

When adult education broadcasts are organised, the role of the teacher is naturally limited to arranging listening groups, following up the broadcast lessons and (most useful) submitting constructive criticism in the form of reports to the producer.

Before dealing in greater detail with the teacher's role, a word on the extraordinary value of broadcasting as a potential medium for education would not be out of place.

Having taken part in large-scale radio campaigns to promote adult education and even to combat illiteracy, and having seen from close quarters how these campaigns were conducted, the author of this report is fully aware of what broadcasting can accomplish.

Radio is independent of distance and holds an appeal for everybody. It is enough to see the pleasure with which people crowd around the wireless on village squares or in cafes in Greece to realise how true this is.

It is therefore all the more unfortunate that there are no special adult educational programmes compiled by people who are educators as well as experienced broadcasters.

We are convinced that this need will be realised some day and that arrangements will be made for such broadcasts in the years to come, before television takes over. It is therefore worth giving teachers a few advance hints on this subject.

TWO TYPES OF LISTENING

Broadcasts can be listened to individually (i.e. at home) and collectively.

Collective listening groups may be quite large and "open", that is, composed of listeners who come and go during the broadcast as happens if the radio is installed on a public square or in a cafe. The group can also be restricted and "closed", i.e. composed of about 20 people who have met especially to listen to the programme from beginning to end.

The latter system is obviously the best and should be the aim if results are to be satisfactory.

THE ROLE OF THE TEACHER

In areas where many families have a wireless set, it is often very difficult to get people to come to the Centre to listen to what they can more comfortably listen to in their own homes. They will only make the effort if there are additional activities which are sufficiently interesting or if the broadcast is organised to enable the teacher to play a certain part in it, always an excellent scheme.

On the other hand, where wireless sets are rare, it is easy to get adults to come and listen to the set at the Centre, provided, of course, that the programme is interesting.

A teacher cannot organise a good listening group unless he knows exactly what the broadcast is going to consist of, how it will be divided up and how long each section will last. This means that the producers must send him a small bulletin beforehand giving a synopsis and plan of the broadcast and any additional information and teaching hints required.

Once the teacher has this bulletin, he knows what to do:

Before the broadcast: He can outline the subject, linking it up to what his listeners already know, and explaining any difficult words they may encounter.

During the broadcast: He will comply with the instructions given by the announcer or set forth in the Bulletin. He will also ensure that each member of the group derives the maximum benefit from the broadcast by giving any explanations, individual or collective, which are required, correcting any misunderstandings or mistakes, should, for example, listeners be asked to carry out an experiment. He must be careful never to talk at the same time as the announcer but should make use of pauses or musical interludes.

After the broadcast: When the wireless is switched off, the teacher must try to turn the lesson to good account. To do this, he must make use of all the usual adult education techniques, i.e. short talk, discussion, practical work, exercises, etc. just as he would do after a film projection.

USE OF THE PICK-UP

The pick-up is mainly used for entertainment purposes (music, dancing, singing). A growing number of educational records are, however, now available on the market, i.e. plays, historical reconstructions, and extracts from poets and prose writers which can in certain cases be used in the Centres.

There is no doubt that good extracts taken from the country's classical and modern writers (starting with the easier ones) are an excellent living introduction to literature.

The use of the gramophone for foreign languages, although a less flexible procedure than that of the tape-recorder, can also be very effective. It enables collective working groups to be organised, which is a successful method with young people.

The records can be bought by each Centre or borrowed like films or film strips, from a central service.

As with the other audio-visual aids records should be introduced and commented on, provided that any explanations given will not detract from the interest of the records.

TELEVISION

Television which is in process of changing our lives and which, in certain countries where it is widespread, has even made builders change the layout of rooms in modern houses (so that families can watch broadcasts under the most comfortable conditions) is the instrument of the future as far as education is concerned, particularly since relay satellites have opened up such enormous potentialities. The experiments which have been carried out in Europe with the help of UNESCO and the O.E.C.D., also show what can be done in rural districts.

Under present conditions, however, television is still a luxury in many countries, particularly those where intensive adult education is necessary.

For this reason, television need not be dealt with in this report.

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